NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SUPERFUND STANDBY CONTRACT

1999 GROUNDWATER SAMPLING TECHNICAL MEMORANDUM

SERVALL LAUNDRY SITE
SUFFOLK COUNTY, NEW YORK
SITE NO. 152077

WORK ASSIGNMENT NO. D003826-01

MARCH 1999

SERVALL LAUNDRY SITE
BAY SHORE, NY
GROUNDWATER SAMPLING JANUARY 1999

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SITE NUMBER 1-52-077
WORK ASSIGNMENT D003826-01

1999 GROUNDWATER SAMPLING TECHNICAL MEMORANDUM

REQUIREMENTS: The groundwater sampling program at the ServAll Laundry Site was executed from January 11 through 14 and in substantial compliance with the referenced Work Assignment Task 3 -Groundwater Sampling as presented by Harding Lawson Associates (HLA) in a letter to Mr. Dylan Keenan dated November 20, 1998.

Under this task HLA, was to sample up to 19 existing groundwater monitoring wells and the groundwater treatment system extraction well (MW-1 through MW-16 and MW-23, MW-3, 6, and 23 consist of paired wells). Figure 1 presents the monitoring well locations, MW-23A and MW-23B are not presented on this figure, they are located approximately 2,000 feet south of MW-16 on the south side of Route 27. New York State Department of Environmental Protection (NYSDEC) provided historical data and well construction details for the task through the table titled "WELLINFO.XLS". Table 1 presents well and groundwater data as observed in the field. Additionally, Table 1 presents comments on the status and condition of the wells located in the field. The observed conditions are further discussed in the following paragraphs.

Sampling of the treatment system extraction well was not performed. This was due to several factors as follows: 1. The treatment system was not on-line due to on-going redevelopment of the re-injection well on Stein Drive; 2. As a result HLA was not tasked with collection and containerization of the approximate 800 gallons of required purge water; 3. Discussions with representatives of EnviroClean, the NYSDEC operation and maintenance contractor, and review of site logbooks indicated that the extraction well had been sampled at the direction of the NYSDEC on December 18, 1999. The results of that sampling and analysis should be reviewed in conjunction with information obtained during the HLA sampling round.

Prior to and during sampling the following well conditions, measurements and parameters were collected and documented on field data sheets presented in Appendix A.

- Project, site, and sample identification data
- Sample observations
- Waterlevel data and general conditions
- Analytical parameters
- Well water purge data including, volume, temperature, pH, conductivity, turbidity and dissolved oxygen content
- Quality Control/Quality Assurance sample collected

WELL DATA COLLECTION: Well and purge data were collected with NYSDEC dedicated equipment to the extent possible. This equipment is identified below. Equipment was calibrated on a daily basis and documented on field logs presented in Appendix B. In general equipment performed adequately with calibration data inside normal limits and standards.

- Thermo Environmental photo ionization detector Model 508S (NYDEC #3)
- HORIBA-U10 multi-meter (NYSDEC #12)
- Solinst water level meter (NYSDEC #4)

Purge water was evacuated from the wells with a GRUNDFOS REDI-FLOW II-MP1 submersible groundwater pump and BTI/MP1 low voltage controller powered by a portable generator. Wells were purged at a flow rate of approximately 1.5 to 2.0 gallon per minute as measured by a stopwatch and graduated container. Wells were purged of three calculated volumes at a minimum or until wet chemistry parameters were stable to within ten percent, see Table 1 for total purge volumes.

SAMPLE COLLECTION: Groundwater samples were collected after well purging with hermetically sealed, pre-cleaned disposable polyvinyl chloride (PVC) bailers attached to PVC coated stainless steel line.

Glassware consisted of 2-40 ml amber vials pre-preserved with hydrochloric acid (HCL) per sample. Samples were submitted to H2M Labs, Inc., Melville, NY, a New York State Department of Health certified laboratory for Method 95-4, low level volatile analysis utilizing New York State analytical protocol. Sample bottles were provided by H2M Labs, Inc. Specific Laboratory certifications and contract information are on file with HLA, Portland, Maine.

QUALITY CONTROL/QUALITY ASSURANCE: QA/QC and Decontamination procedures were adhered to and performed to minimize cross contamination and to document sample integrity for the program field effort.

Sample equipment and gear was washed with potable water and non-phosphate detergent and then thoroughly rinsed with ASTM Type II de-ionized (DI) water. The groundwater pump and tubing were decontaminated via exterior wash as previously described and internal components and discharge tubing flushed with a minimum of three volumes of Type II DI water. This was a deviation from proposed methods for dedicated well tubing. However, the variance was discussed and approved by the NYSDEC project manager prior to implementation in the field.

Chain of custody (COC) procedures were maintained through the program for all samples collected. Samples documented on chain of custody records, presented as Appendix C. Samples and or storage cooler custody were either maintained through line-of-site or stored in a locked vehicle.

Sample identification and labeling were consistent with the HLA Integrated Site Information System (ISIS) coding and the NYSDEC/ServAll Phase I Remedial Investigation Report (E. C. Jordan, January 1992). The subject sampling round was identified as "01" or the first sampling round of 1999.

Sample program field QC procedures were performed in accordance with HLA procedures for field activities through the collection and maintenance of trip blanks (1 per day per sample cooler), Equipment blanks (rinsate blanks), and referee samples (i.e., Duplicates, Matrix

Spike/Matrix Spike Duplicates) at a frequency of five percent of the samples collected or one of each for the subject HLA field program.

FIELD FINDINGS: In general the field program was executed without significant variance of expected parameters. All equipment performed without incident and generally within calibration ranges. The following issues were noted.

- The COC document dated and relinquished to the contract laboratory on 1/13/99 failed to identify a cooler trip blank for the daily inventory. This was recognized by H2M Labs, Inc. and the sample was verified as present in the cooler. The occurrence is noted on the COC document.

- Total depth of the wells sampled consistently measured shallower then indicated by historic values provided by the NYSDEC. Collected data is presented in Table 1. The observation may be due to siltation of the wells, however, this condition was not verified.

- All wells sampled yielded adequate recharge rates to provide minimum purge volumes and establish stable wet chemistry parameters. Three wells did not purge to generally recognized turbidity values for sampling of <10 NTUs. These wells were MW-6B, MW-23s, and MW-23D with values of 65, 22 and 41 respectively. These values may be attributed to the following: 1. Wells MW-23S and MW-23D are noted in project documentation as being near or within documented clay lens regions of the acquifer; and 2. MW-6B due to severe weather could not be pumped at attempted flow rates (e.g., <0.5 gpm) due to freezing of the pump lines and was purged utilizing bailer techniques. All other parameters were generally stable for the wells when sampled.

- Of the 20 wells identified for the sampling program four (MW-7, MW-8, MW-10 and MW-16) could not be located. Monitoring wells 7 & 8 are believed to have been destroyed by construction activities subsequent to installation. Monitoring wells 10 and 16 are believed to exist but could not be located utilizing available maps and surface detection via metal detector or through superficial indicators during well specific site review. Inquiries to the NYSDEC provided no additional information.

- Of the 16 wells sampled nine are not generally secure against non-authorized personnel. Two additional wells required locks to be cut by HLA due to the lack of available keys. These locks were not replaced at the time of sampling, however, ERM Enviroclean Northeast was directed by HLA to replace the locks. Three wells require removal of the flush mount casings from the ground to gain access due to damage of the access covers. General comments on well conditions are presented in Table 1. A significant amount of time was spent in attempts to access specific wells.

- A significant amount of time was lost during the field program in physically locating wells. As a result HLA has generated swing-tie location sketches for future location of the wells. These sketches are presented in Appendix D.

ANALYTICAL RESULTS:

The analytical results are presented in Table 2 and the NYSDEC Data Usability Summary Report (DUSR) is presented as Appendix E. Volatile organic compounds (VOCs) were detected in 14 of the 16 wells sampled ranging in concentrations from 1 part per billion (ppb) to 290 ppb. The VOCs detected above the contract required quantitation limits (CRQL) include acetone; 1,1,1-trichloroethane; tetrachloroethene; 1,1-dichloroethene; 1,1-dichloroethane; 1,2-dichloroethene (cis); vinyl chloride; and trichloroethene.

As discussed in the DUSR, quality control sample results associated with field sample data for VOCs indicates that all data can be used as reported by the laboratory and no sample results were determined to be non-usable or rejected. A subset of target compound results have been qualified J indicating the values are estimated. The J qualifier is applied to results that are detected at concentrations less than the contract required quantitation limits (CRQL). Additional results for vinyl chloride, trichloroethene, and tetrachloroethene are qualified as estimated due to calibration check standard response falling outside validation guideline control limits. This does not represent a gross difference in calibration response, and the degree of estimation associated with these results is interpreted to be small.

Acetone was detected in one sample, MW-2, at a concentration of 8 ppb and has been screened out as a common laboratory contaminant. 1,1,1-Trichloroethane was detected above CRQL in 9 samples ranging in concentration from 1 ppb in MW-02 and MW-12 to 34 ppb in MW-13. Tetrachloroethene was detected in 11 samples ranging in concentration from 1 ppb in MW-01 and MW-6A to 290 ppb in MW-11. 1,1-Dichloroethene was detected above the CRQL in 5 samples ranging in concentration from 1 ppb in MW-14 to 12 ppb in MW-13. 1,1-Dichloroethane was detected above the CRQL in 5 samples ranging in concentration from 1 ppb in MWs-6A, 13, and 15 to 4 ppb in MW-04. 1,2-Dichloroethene (cis) was detected above the CRQL in 7 samples ranging in concentration from 1 ppb in MW-6A and MW-13 to 27 ppb in MW-11. Vinyl chloride was detected above the CRQL only in MW-11 at a concentration of 4 ppb. Trichloroethene was detected above the CRQL in 6 samples ranging in concentrations from 3 ppb in MW-09 and MW-23S to 30 ppb in MW-15.

With the exception of samples MW-01 and MW-3B, tentatively identified compounds (TICs) were not detected in the water samples. The TIC 2-methoxy-2-methylpropane was reported in MW-01 and MW-3B at concentrations of 53 ppb and 6 ppb, respectively. Based on a review of the mass spectra, this compound was determined to be methyl-tert-butyl-ether (MTBE). The reported concentrations are considered estimated because the MTBE was not quantified using a calibration standard.

When the 1999 HLA results are compared with the 1998 NYSDEC sampling results (Table 3), it appears that the contaminant plume has migrated south with monitoring wells MW-11, MW-15, and MW-23 indicating increased tetrachloroethene concentrations. The concentrations difference between the MW-6B 1998 (11,000 µg/L) and 1999 (22 µg/L) appears anomalous.

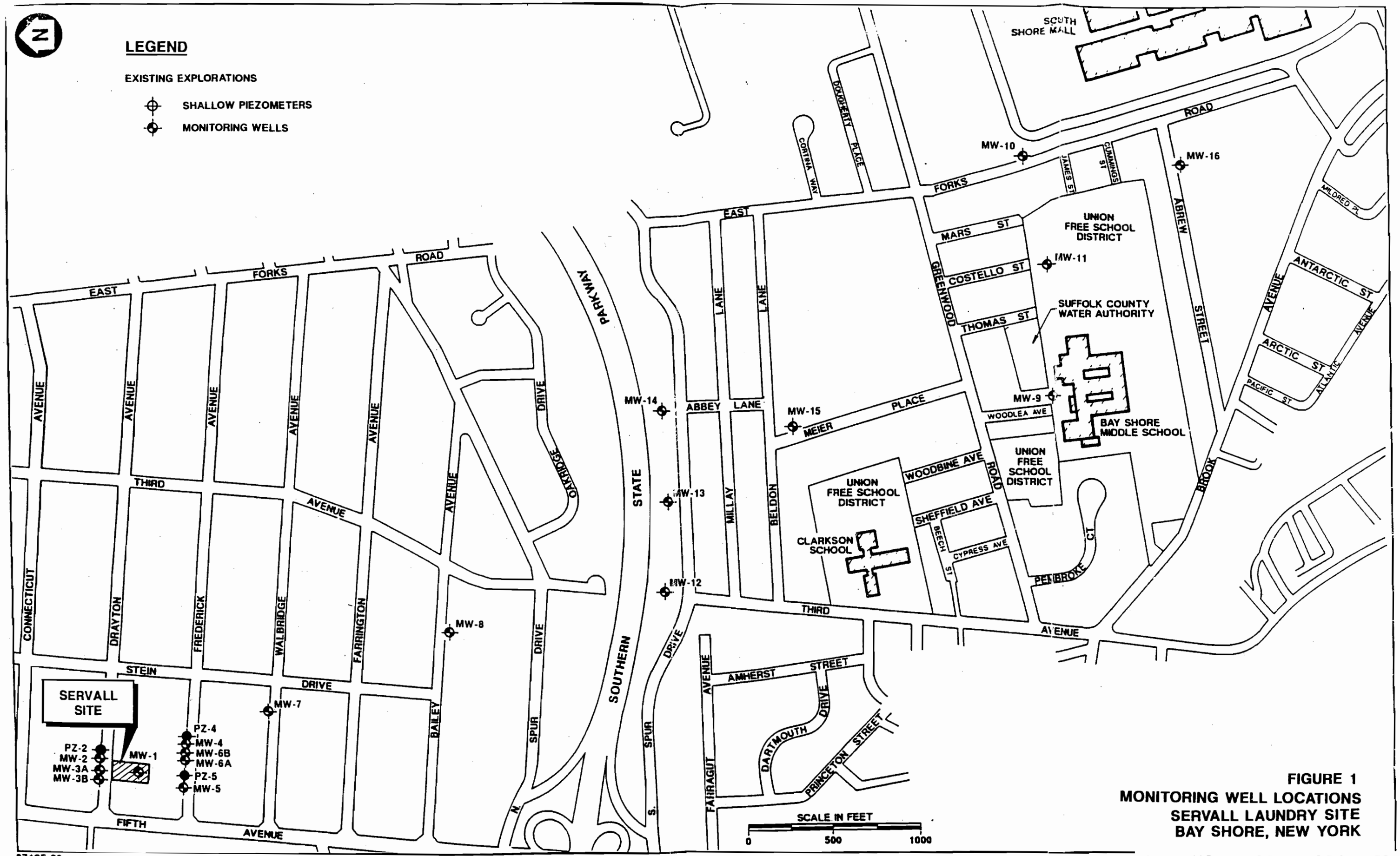

FIGURE 1
MONITORING WELL LOCATIONS
SERVALL LAUNDRY SITE
BAY SHORE, NEW YORK

07135-00

HARDING LAWSON ASSOCIATES

TABLE 1
MONITORING WELL SURVEY
SERVALL LAUNDRY SITE
GROUNDWATER SAMPLING JANUARY 11-14,1999
BAY SHORE, NY

	WELL ID	ISIS ID	DEPTH OF WELL HISTORIC (FT)	DEPTH OF WELL (FT)	DEPTH TO WATER TABLE (FT)	HEIGHT OF WATER COLUMN (FT)	WELL ID (IN)	3X VOLUME (GAL)	ACTUAL VOLUME PURGED (GAL)	COMMENTS
1	MW-1	SVMWX01XXX01XX	90	86.42	24.10	62.32	4	122.9	124.0	WELL NOT LABELED OR LOCKED. PROTECTIVE CASING NOT SECURE. CASING AND COLLAR IS INTACT
2	MW-2	SVMWX02XXX01XX	82	81.93	24.13	57.80	2	39.4	39.0	WELL HEAD IN GOOD AND SERVICEABLE CONDITION, HOWEVER NO KEY AVAILABLE LOCK WAS CUT
3	MW-3A*	SVMWX3AXXX01XX	120	120.00	23.91	96.09	2	45.1	46.0	WELL NOT LABELED OR LOCKED. PROTECTIVE CASING NOT SECURE. CASING AND COLLAR IS INTACT HOWEVER PROTECTIVE COVER HAS BEEN DESTROYED
4	MW-3B	SVMWX3BXXX01XX	90	88.00	24.03	63.97	2	30.7	32.5	WELL NOT LABELED OR LOCKED. PROTECTIVE CASING NOT SECURE. CASING AND COLLAR IS INTACT
5	MW-4	SVMWX04XXX01XX	85	59.85	23.40	59.85	2	28.8	31.0	WELL CASING IS LABELED , LOCKED AND SECURE. HOWEVER COVER IS JAMMED WHICH REQUIRED REMOVAL OF CASING FROM GROUND. THIS APPROACH HAD OBVIOUSLY BEEN USED IN THE PAST
6	MW-5	SVMWX05XXX01XX	86	83.98	24.38	59.60	2	28.8	30.0	WELL HEAD IN GOOD AND SERVICEABLE CONDITION
7	MW-6A	SVMWX6AXXX01XX, SVMWX6AXXX01XD, SVMWX6AXXX01MS, SVMWX6AXXX01XMSD	63	62.32	24.35	37.97	2	17.8	25.0	WELL HEAD IN GOOD AND SERVICEABLE CONDITION, HOWEVER NO KEY AVAILABLE LOCK WAS CUT
8	MW-6B	SVMWX6BXXX01XX	32	31.42	21.30	10.12	2	2.9	4.0	WELL CASING IS LABELED , LOCKED AND SECURE. HOWEVER COVER IS JAMMED WHICH REQUIRED REMOVAL OF CASING FROM GROUND. THIS APPROACH HAD OBVIOUSLY BEEN USED IN THE PAST
9	MW-7	-	112	-	-	-	2	53.8	-	WELL NOT LOCATED. BELIEVED TO BE DESTROYED
10	MW-8	-	104	-	-	-	2	49.9	-	WELL NOT LOCATED. BELIEVED TO BE DESTROYED
11	MW-9	SVMWX09XXX01XX	90	88.00	13.76	74.24	2	36.5	39.0	WELL HEAD IN GOOD AND SERVICEABLE CONDITION
12	MW-10	-	89	-	-	-	2	42.7	-	WELL NOT LOCATED
13	MW-11	SVMWX11XXX01XX	90	88.43	10.41	76.02	2	37.9	39.0	WELL HEAD IN GOOD AND SERVICEABLE CONDITION
14	MW-12	SVMWX12XXX01XX	91	88.85	17.12	71.73	2	35.3	37.0	WELL CASING IS LOCKED AND SECURE. HOWEVER COVER IS JAMMED WHICH REQUIRED REMOVAL OF CASING FROM GROUND. THIS APPROACH HAD OBVIOUSLY BEEN USED IN THE PAST. ADDITIONALLY THE WELL IS NOT LABELED.
15	MW-13	SVMWX13XXX01XX	98	96.17	17.44	78.73	2	38.6	44.0	WELL HEAD IN GOOD AND SERVICEABLE CONDITION
16	MW-14	SVMWX14XXX01XX	96	93.30	17.64	75.66	2	37.4	37.0	WELL HEAD IN GOOD AND SERVICEABLE CONDITION
17	MW-15	SVMWX15XXX01XX	99	97.22	17.87	79.35	2	38.9	42.0	WELL HEAD IN SERVICEABLE CONDITION. HOWEVER NO LOCKING BAR IN PLACE AND LOCK ON WELL CAP IN NOT SECURE.
18	MW-16	-	96	-	-	-	2	40.3	-	WELL NOT LOCATED
19	MW-94-23S	SVMW23SXXX01XX	70	69.00	6.52	62.48	2	31.0	74.0	WELL HEAD IN GOOD AND SERVICEABLE CONDITION. NO IDENTIFIABLE MARKINGS WERE EVIDENT.

TABLE 1
MONITORING WELL SURVEY
SERVALL LAUNDRY SITE
GROUNDWATER SAMPLING JANUARY 11-14,1999
BAY SHORE, NY

20	MW-94-23D	SVMW23DXXX01XX	88	87.30	5.64	81.66	2	39.6	70.0	WELL HEAD IN GOOD AND SERVICEABLE CONDITION. NO IDENTIFIABLE MARKINGS WERE EVIDENT.

NOTES:

1 ALL DATA PRESENTED IN TABLE IS AS OBSERVED IN THE FIELD BY HLA

2 WELLS MW-7, MW-8, MW-10, & MW-16 WERE NOT LOCATED IN THE FIELD. EXTENSIVE SEARCH WAS PROVIDED THROUGH SITE WALKOVER, METAL DETECTOR SURVEY, AND COMPARISON TO AVAILABLE MAPS. INQUIRES TO NYSDEC PROVIDED NO ADDITIONAL DATA.

3 OF THE 16 WELLS SAMPLED 9 WERE NOT SECURE RELATIVE TO WELL HEAD ACCESS. TWO ADDITIONAL WELLS REQUIRED CUTTING OF THE LOCKS DUE TO LACK OF KEYS, LOCKS WERE NOT REPLACED.

4 IN ALL CASES WELL HEADS WERE SERVICED BY REMOVAL OF EXCESS SOIL TO SEVERAL INCHES BELOW TOP OF CASING, LUBRICATION OF WELL LOCKS, AND CLEANING VIA SCRUBBING AND FLUSHING OF WELL COVERS, CAPS, CASINGS AND SEALS WITH DI WATER.

5 FOR ALL WELLS LOCATED IN THE PROGRAM HLA CREATED SWING-TIE LOCATION SKETCHS TO REASONABLY PERMANENT SITE FEATURES (e.g., LIGHT POLES, BUILDINGS) FOR FUTURE LOCATION OF WELLS.

TABLE 2
SUMMARY OF DETECTED VOLATILE TARGET COMPOUNDS
SERVAL LAUNDRY SITE
BAY SHORE, NY

LOCATION ID:		Trip Blank	Trip Blank	Rinse Blank	MW-01	MW-02	MW-3A
HLA SAMPLE ID:		TB1/12	TB1/14	SVQSXXXX01XX	SV01XXX01XX	SV02XXX01XX	SV3AXXX01XX
LAB NUMBER:		9901091	9901162	9901161	9901152	9901153	9901081
DATE SAMPLED:		1/12/99	1/14/99	1/14/99	1/13/99	1/14/99	1/12/99
DATE ANALYZED:		1/23/99	1/24/99	1/24/99	1/24/99	1/24/99	1/23/99
ANALYTE	CRQL						
Vinyl Chloride	1	-	-	-	-	-	-
Methylene Chloride	2	-	-	1 J	-	-	-
Acetone	5	-	-	-	-	8	-
1,1-Dichloroethene	1	-	-	-	-	-	-
1,1-Dichloroethane	1	-	-	-	-	-	-
1,2-Dichloroethene (cis)	1	-	-	-	-	-	-
1,2-Dichloroethene (trans)	1	-	-	-	-	-	-
Chloroform	1	-	-	-	-	-	-
1,1,1-Trichloroethane	1	-	-	-	-	1	-
Trichloroethene	1	-	-	-	-	-	0.7 J
Tetrachloroethene	1	-	-	-	1 J	-	-
Dilution Factor:		1	1	1	1	1	1
Associated Method Blank:		BLK001	BLK001	BLK002	BLK002	BLK002	BLK002
Associated Equipment Blank:		QS01XX	QS01XX		QS01XX	QS01XX	QS01XX
Associated Trip Blank:				TB1/14	TB1/14	TB1/14	TB1/14

hits

TABLE 2
SUMMARY OF DETECTED VOLATILE TARGET COMPOUNDS
SERVAL LAUNDRY SITE
BAY SHORE, NY

LOCATION ID:		MW-3B	MW-04	MW-05	MW-6A Dupe	MW-6A
HLA SAMPLE ID:		SV3BXXX01XX	SV04XXX01XX	SV05XXX01XX	SV6AXXX01XD	SV6AXXX01XX
LAB NUMBER:		9901082	9901154	9901155	9901158	9901159
DATE SAMPLED:		1/12/99	1/14/99	1/14/99	1/14/99	1/14/99
DATE ANALYZED:		1/23/99	1/24/99	1/24/99	1/24/99	1/24/99
ANALYTE	CRQL					
Vinyl Chloride	1	-	-	-	-	-
Methylene Chloride	2	-	-	-	-	-
Acetone	5	-	-	-	-	-
1,1-Dichloroethene	1	-	-	0.8 J	-	-
1,1-Dichloroethane	1	-	-	4	1 J	-
1,2-Dichloroethene (cis)	1	2	-	-	1 J	-
1,2-Dichloroethene (trans)	1	-	-	-	-	-
Chloroform	1	-	-	-	-	-
1,1,1-Trichloroethane	1	-	2	16	0.6 J	-
Trichloroethene	1	-	0.5 J	0.6 J	-	-
Tetrachloroethene	1	-	-	3 J	1 J	-
Dilution Factor:		1	1	1	1	1
Associated Method Blank:		BLK002	BLK002	BLK002	BLK002	BLK002
Associated Equipment Blank:		QS01XX	QS01XX	QS01XX	QS01XX	QS01XX
Associated Trip Blank:		TB1/14	TB1/14	TB1/14	TB1/14	TB1/14

hits

TABLE 2
SUMMARY OF DETECTED VOLATILE TARGET COMPOUNDS
SERVAL LAUNDRY SITE
BAY SHORE, NY

LOCATION ID:		MW-6B	MW-09	MW-11	MW-12	MW-13
HLA SAMPLE ID:		SV6BXXX01XX	SV09XXX01XX	SV11XXX01XX	SV12XXX01XX	SV13XXX01XX
LAB NUMBER:		9901160	9901083	9901084	9901085	9901086
DATE SAMPLED:		1/14/99	1/13/99	1/13/99	1/13/99	1/12/99
DATE ANALYZED:		1/24/99	1/23/99	1/24/99	1/23/99	1/24/98
ANALYTE	CRQL					
Vinyl Chloride	1	-	-	4 J	-	-
Methylene Chloride	2	-	-	-	-	-
Acetone	5	-	-	-	-	-
1,1-Dichloroethene	1	-	2	-	-	12
1,1-Dichloroethane	1	-	2	-	-	1
1,2-Dichloroethene (cis)	1	0.8 J	3	27 J	-	1 J
1,2-Dichloroethene (trans)	1	-	-	2	-	-
Chloroform	1	-	-	-	-	0.5 J
1,1,1-Trichloroethane	1	-	8	1 J	1	34
Trichloroethene	1	0.6 J	3	21	-	23
Tetrachloroethene	1	22 J	14 J	290 J	6 J	4 J
Dilution Factor:		1	1	1 and 50	1	1 and 10
Associated Method Blank:		BLK002	BLK002	BLK002	BLK002	BLK002
Associated Equipment Blank:		QS01XX	QS01XX	QS01XX	QS01XX	QS01XX
Associated Trip Blank:		TB1/14	TB1/12	TB1/12	TB1/12	TB1/12

hits

TABLE 2
SUMMARY OF DETECTED VOLATILE TARGET COMPOUNDS
SERVAL LAUNDRY SITE
BAY SHORE, NY

LOCATION ID:		MW-14	MW-15	MW-23D	MW-23S
HLA SAMPLE ID:		SV14XXX01XX	SV15XXX01XX	SV23DXXX01XX	SV23SXXX01XX
LAB NUMBER:		9901087	9901088	9901089	9901090
DATE SAMPLED:		1/12/99	1/13/99	1/13/99	1/13/99
DATE ANALYZED:		1/23/99	1/23/99	1/23/99	1/24/99
ANALYTE	CRQL				
Vinyl Chloride	1	-	-	-	-
Methylene Chloride	2	-	-	-	-
Acetone	5	-	-	-	-
1,1-Dichloroethene	1	1	8	-	4
1,1-Dichloroethane	1	-	1	-	-
1,2-Dichloroethene (cis)	1	-	17	2	9
1,2-Dichloroethene (trans)	1	-	-	-	-
Chloroform	1	-	0.6 J	-	-
1,1,1-Trichloroethane	1	3	17	-	6
Trichloroethene	1	8	30 J	-	3
Tetrachloroethene	1	-	250 J	3 J	29 J
Dilution Factor:		1	1 and 100	1	1 and 10
Associated Method Blank:		BLK002	BLK002	BLK002	BLK002
Associated Equipment Blank:		QS01XX	QS01XX	QS01XX	QS01XX
Associated Trip Blank:		TB1/12	TB1/12	TB1/12	TB1/12

TABLE 3
COMPARISON OF 1998/1999 DETECTED VOLATILE TARGET COMPOUNDS
SERVAL LAUNDRY SITE
BAY SHORE, NY

LOCATION ID:		MW-01	MW-1	MW-02	MW-3A	MW-3A	MW-3B	MW-3B
HLA SAMPLE ID:		SV01XXX01XX	NYSDEC	SV02XXX01XX	SV3AXXX01XX	NYSDEC	SV3BXXX01XX	NYSDEC
LAB NUMBER:		9901152		9901153	9901081		9901082	
DATE SAMPLED:		1/13/99	1/6/98	1/14/99	1/12/99	1/6/98	1/12/99	1/6/98
DATE ANALYZED:		1/24/99		1/24/99	1/23/99		1/23/99	
ANALYTE	CRQL µg/L							
Vinyl Chloride	1	-	-	-	-	-	-	-
1,1-Dichloroethene	1	-	-	-	-	-	-	-
1,2-Dichloroethene (cis)	1	-	-	-	-	-	2	-
1,2-Dichloroethene (trans)	1	-	-	-	-	-	-	-
1,1,1-Trichloroethane	1	-	-	1	-	-	-	-
Trichloroethene	1	-	-	-	0.7 J	-	-	-
Tetrachloroethene	1	1 J	28	-	-	-	-	-
Dilution Factor:		1		1	1		1	
Associated Method Blank:		BLK002		BLK002	BLK002		BLK002	
Associated Equipment Blank:		QS01XX		QS01XX	QS01XX		QS01XX	
Associated Trip Blank:		TB1/14		TB1/14	TB1/14		TB1/14	

TABLE 3
COMPARISON OF 1998/1999 DETECTED VOLATILE TARGET COMPOUNDS
SERVAL LAUNDRY SITE
BAY SHORE, NY

LOCATION ID:		MW-04	MW-04	MW-05	MW-05	MW-6A Dup	MW-6A	MW-6B	MW-6B
HLA SAMPLE ID:		SV04XXX01XX	NYSDEC	SV05XXX01XX	NYSDEC	SV6AXXX01XD	NYSDEC	SV6BXXX01XX	NYSDEC
LAB NUMBER:		9901154		9901155		9901158		9901160	
DATE SAMPLED:		1/14/99	1/6/98	1/14/99	1/6/98	1/14/99	1/6/98	1/14/99	1/6/98
DATE ANALYZED:		1/24/99		1/24/99		1/24/99		1/24/99	
ANALYTE	CRQL µg/L								
Vinyl Chloride	1	-	-	-	-	-	-	-	nd500
1,1-Dichloroethene	1	-	-	0.8 J	-	-	-	-	nd500
1,2-Dichloroethene (cis)	1	-	-	-	-	1 J	12	0.8 J	nd500
1,2-Dichloroethene (trans)	1	-	-	-	-	-	-	-	nd500
1,1,1-Trichloroethane	1	2	-	16	-	0.6 J	-	-	nd500
Trichloroethene	1	0.5 J	-	0.6 J	-	-	-	0.6 J	nd500
Tetrachloroethene	1	-	4	3 J	-	1 J	2	22 J	11000
Dilution Factor:		1		1		1		1	
Associated Method Blank:		BLK002		BLK002		BLK002		BLK002	
Associated Equipment Blank:		QS01XX		QS01XX		QS01XX		QS01XX	
Associated Trip Blank:		TB1/14		TB1/14		TB1/14		TB1/14	

TABLE 3
COMPARISON OF 1998/1999 DETECTED VOLATILE TARGET COMPOUNDS
SERVAL LAUNDRY SITE
BAY SHORE, NY

LOCATION ID:		MW-09	MW-09	MW-11	MW-11	MW-12	MW-12	MW-13	MW-13
HLA SAMPLE ID:		SV09XXX01XX	NYSDEC	SV11XXX01XX	NYSDEC	SV12XXX01XX	NYSDEC	SV13XXX01XX	NYSDEC
LAB NUMBER:		9901083		9901084		9901085		9901086	
DATE SAMPLED:		1/13/99	1/7/98	1/13/99	1/7/98	1/13/99	1/7/98	1/12/99	1/7/98
DATE ANALYZED:		1/23/99		1/24/99		1/23/99		1/24/98	
ANALYTE	CRQL µg/L								
Vinyl Chloride	1	-	-	4 J	-	-	-	-	-
1,1-Dichloroethene	1	2	-	-	-	-	-	12	8
1,2-Dichloroethene (cis)	1	3	-	27 J	3	-	-	1 J	-
1,2-Dichloroethene (trans)	1	-	-	2	-	-	-	-	-
1,1,1-Trichloroethane	1	8	-	1 J	-	1	-	34	19
Trichloroethene	1	3	-	21	25	-	7	23	13
Tetrachloroethene	1	14 J	-	290 J	20	6 J	2	4 J	-
Dilution Factor:		1		1 and 50		1		1 and 10	
Associated Method Blank:		BLK002		BLK002		BLK002		BLK002	
Associated Equipment Blank:		QS01XX		QS01XX		QS01XX		QS01XX	
Associated Trip Blank:		TB1/12		TB1/12		TB1/12		TB1/12	

TABLE 3
COMPARISON OF 1998/1999 DETECTED VOLATILE TARGET COMPOUNDS
SERVAL LAUNDRY SITE
BAY SHORE, NY

LOCATION ID:		MW-14	MW-14	MW-15	MW-15	MW-16	MW-23D	MW-23D
HLA SAMPLE ID:		SV14XXX01XX	NYSDEC	SV15XXX01XX	NYSDEC	NYSDEC	SV23DXXX01XX	NYSDEC
LAB NUMBER:		9901087		9901088			9901089	
DATE SAMPLED:		1/12/99	1/7/98	1/13/99	1/7/98	1/8/98	1/13/99	1/8/98
DATE ANALYZED:		1/23/99		1/23/99			1/23/99	
ANALYTE	CRQL µg/L							
Vinyl Chloride	1	-	-	-	-	30	-	-
1,1-Dichloroethene	1	1	3	8	-	-	-	-
1,2-Dichloroethene (cis)	1	-	-	17	16	360	2	-
1,2-Dichloroethene (trans)	1	-	-	-	-	-	-	-
1,1,1-Trichloroethane	1	3	8	17	-	-	-	-
Trichloroethene	1	8	17	30 J	17	61	-	-
Tetrachloroethene	1	-	-	250 J	170	450	3 J	-
								-
Dilution Factor:		1		1 and 100			1	
Associated Method Blank:		BLK002		BLK002			BLK002	
Associated Equipment Blank:		QS01XX		QS01XX			QS01XX	
Associated Trip Blank:		TB1/12		TB1/12			TB1/12	

TABLE 3
COMPARISON OF 1998/1999 DETECTED VOLATILE TARGET COMPOUNDS
SERVAL LAUNDRY SITE
BAY SHORE, NY

	LOCATION ID:	MW-23S	MW-23S
	HLA SAMPLE ID:	SV23SXXX01XX	NYSDEC
	LAB NUMBER:	9901090	
	DATE SAMPLED:	1/13/99	1/8/98
	DATE ANALYZED:	1/24/99	
ANALYTE	CRQL µg/L		
Vinyl Chloride	1	-	-
1,1-Dichloroethene	1	4	-
1,2-Dichloroethene (cis)	1	9	3
1,2-Dichloroethene (trans)	1	-	-
1,1,1-Trichloroethane	1	6	-
Trichloroethene	1	3	-
Tetrachloroethene	1	29 J	7
	Dilution Factor:	1 and 10	
	Associated Method Blank:	BLK002	
	Associated Equipment Blank:	QS01XX	
	Associated Trip Blank:	TB1/12	

APPENDIX A

FIELD DATA SHEETS

MW-1 Page 1 of 1

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☑ Groundwater ☐ Other: _____ 1/13/99

Project: Seruall Laundry Job No.: 2455.30 Date: ~~1/13/98~~ wdj

Sample No. (ISIS): SVMWX01XXXX01XX Time of Activity: Start: ~~1825~~ 18:20 End: 19:35

Field QC Data: ☐ Field Duplicate Collected Duplication No.: _____ wdj

Sample Observations

Color: Clear Odor? None

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: —

Water Level/Well Data

A. Well Depth (ft): 86.42
B. Depth to Water (ft): 24.10
C. Height of Water (ft): 62.32
D. Well ID (in): 4
E. Vol (gal): 41.0

F. Historical Well Depth (ft): 90
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): wdj 94 − .9 FL
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 122.9

J. Well Locked? NO
K. Protective Casing Secure? NO
L. Concrete Apron Intact? YES
M. Well Markings Readable? NO

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☑ Liquinox
☐ RAD Meter	☐ Spatula	☑ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	wdj USEPA 8240	(N)	☒	2x40ml	(4 DEG C)	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP 95-4	N/Y	☐		HN03	
☐ Other					(HCL)	

Purge Data

	First Volume (1840)	Second Volume (1901)	Third Volume (1922)
Volume	41 gal	82 gal	124 gal
Temp (C)	13.0	12.7	12.4
pH	5.95	5.82	5.86
Cond.	.674	.732	.730
Turbidity	0	0	0
D.O.	1.12	1.55	1.47

QA/QC Data

QA Sample Taken?
ISIS Code: NO

QC Sample(s) Taken?
ISIS Code: NO

Notes: Swing ties captured for well location (ON FILE)

Signature: _____

Received by: _____

ABB Environmental Services, Inc.

W9603032S

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: _____

Project: Fervall Laundry Job No.: 2455.30 Date: 1/14/99

Sample No. (ISIS): SVMWX02XXX01XX Time of Activity: Start: 0806 End: 0840

Field QC Data: ☐ Field Duplicate Collected Duplication No.: ——

Sample Observations

Color: Clear Odor? None

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: ——

Water Level/Well Data

YES - NO Key Cut Lock ~~No key cut Lock~~ WB

A. Well Depth (ft): 81.93
B. Depth to Water (ft): 24.13
C. Height of Water (ft): 57.80
D. Well ID (in): 2
E. Vol (gal): 13.1
F. Historical Well Depth (ft): 82
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): -.6 ft
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 39.4
J. Well Locked? ~~No key cut Lock~~ WB
K. Protective Casing Secure? Yes
L. Concrete Apron Intact? Yes
M. Well Markings Readable? Yes

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	~~USEPA 8240~~ WB	(N)	☒	2x40ml	4 DEG C	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP 95-4	N/Y	☐		HN03 HCL	
☐ Other ———						

Purge Data

	First Volume (0812)	Second Volume (0818.5)	Third Volume (0825)
Volume	13 g	26 g	39 g
Temp (C)	13.9	13.7	13.5
pH	5.34	5.30	5.18
Cond.	.149	.141	.139
Turbidity	2	1	1
D.O.	3.10	3.40	3.50

QA/QC Data

QA Sample Taken? ISIS Code: No

QC Sample(s) Taken? ISIS Code: No

Notes: • Temp variation due to cold weather
• Well Location Info captured (ON FILE)

Signature: Chuck Lapp

Received by: ——

ABB Environmental Services, Inc.

W9603032S

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: _____

Project: Sorbara LAUNDRY Job No.: 2455.30 Date: 1/12/99

Sample No. (ISIS): SV MW X3A XXX-01-XX Time of Activity: Start: 11.15 End: 12.00

Field QC Data: ☐ Field Duplicate Collected Duplication No.: _____

Sample Observations

Color: Clear Odor? No

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: _____

Water Level/Well Data

A. Well Depth (ft): ~~23.91~~ 120 (Historic)
B. Depth to Water (ft): 23.91
C. Height of Water (ft): 96.09
D. Well ID (in): 2
E. Vol (gal): 15.7

F. Historical Well Depth (ft): 120
G. Measured from: ☒ Riser ☐ Casing
H. Casing Stick-up (ft): -.5 ft
I. Diff Well and Casing (ft): - N/A
J. Purge Volume (gal or ft³): 45.1

J. Well Locked? No
K. Protective Casing Secure? No
L. Concrete Apron Intact? yes
M. Well Markings Readable? No
Well labeled by paint on sidewalk

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	/ Volume	Preserved?	Label No(s).
☒ VOC	USEPA 8240	(N)	☒	2x40 ml	(4 DEG C)	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	(See WKP) 95-4	N/Y	☐		~~HN03~~ (HCL)	
☐ Other						

Purge Data

	First Volume 11.30	Second Volume 11.38	Third Volume 11.46	11.53
Volume .5g.	15 g	31 g	46 g	62 g
Temp (C) 14.1	13.5	13.5	13.8	14.2
pH 5.37	5.80	5.93	5.87	5.96
Cond. 1.24	.742	.689	.674	.681
Turbidity 53	71	12	7	6
D.O. 5.98	2.38	2.38	2.55	2.12

QA/QC Data

QA Sample Taken?
ISIS Code: No

QC Sample(s) Taken?
ISIS Code: No

Notes: Water meter not long enough to measure well depth (recorded Historical
Protective cover gone.
Well location data collected (ON FILE)
began @ 0816, 0930 pump stops

Signature: _____
Received by: _____

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FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: _____

Project: Scovell Laundry Job No.: 2455.30 Date: 1/12/99

Sample No. (ISIS): SV-MW-X3B-XXX-01-XX Time of Activity: Start: 13:12 End: 13:40

Field QC Data: ☐ Field Duplicate Collected Duplication No.: _____

Sample Observations

Color: _____ Odor? No

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: _____

Water Level/Well Data

A. Well Depth (ft): CRS 24.03 88ft F. Historical Well Depth (ft): 90 J. Well Locked? NO

B. Depth to Water (ft): 24.03 G. Measured from: ☐ Riser ☒ Casing K. Protective Casing Secure? NO

C. Height of Water (ft): 83.97 H. Casing Stick-up (ft): -3.5ft L. Concrete Apron Intact? YES

D. Well ID (in): 2 I. Diff Well and Casing (ft): N/A M. Well Markings Readable? NO

E. Vol (gal): 10.2 J. Purge Volume (gal or ft³): 30.7

well labeled w/ PAINT ON side walk

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	USEPA 8240	(N)	☒	2X40ml	(4 DEG C)	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	(See WKP) 95-4	N/Y	☐		HN03 (HCL)	
☐ Other						

Purge Data

	1317 First Volume	1323 Second Volume	1329 Third Volume
Volume	10.5	22.0	32.5
Temp (C)	13.9	14.0	14.0
pH	5.96	6.03	6.05
Cond.	.433	.481	.475
Turbidity	7	1	0
D.O.	1.75	2.06	1.73

QA/QC Data

QA Sample Taken?

ISIS Code: NO

QC Sample(s) Taken?

ISIS Code: NO

Notes: Well location Data captured (ON FILE)

Signature: Chuck Argo

Received by: _____

ABB Environmental Services, Inc.

W9603032S

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: _____

Project: Suvali Laundry Job No.: 24553.30 Date: 1/14/99

Sample No. (ISIS): SVMWX04XXXX01XX Time of Activity: Start: 1214 End: 1245

Field QC Data: ☐ Field Duplicate Collected Duplication No.: _____

Sample Observations

Color: clear Odor? None

Grain Size: N/A PID Reading: 0.5 Units: ppm

Saturated? N/A Other: _____

Water Level/Well Data

A. Well Depth (ft): 83.35
B. Depth to Water (ft): 23.40
C. Height of Water (ft): 59.85
D. Well ID (in): 2
E. Vol (gal): 9.6
F. Historical Well Depth (ft): 85
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): -.75
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 28.5
J. Well Locked? Y - See Note
K. Protective Casing Secure? Y
L. Concrete Apron Intact? N
M. Well Markings Readable? Y

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	~~USEPA 8240~~ WD	(N)	☒	2x40 ml	(4 DEG C)	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	(See WKP 95-4)	N/Y	☐		HN03 (HCl)	
☐ Other _____						

Purge Data

	First Volume (1219)	Second Volume (1225)	Third Volume (1231)
Volume	10 gal	20 gal	31 gal
Temp (C)	13.7	13.4	13.5
pH	5.41	5.65	5.57
Cond.	.258	.258	.258
Turbidity	1	0	0
D.O.	1.47	1.69	1.44

QA/QC Data

QA Sample Taken?
ISIS Code: No

QC Sample(s) Taken?
ISIS Code: No

Notes: Well casing covered/buried. Hard to pull out entire casing to access well
Location data collected (ON FILE)

Signature: _____

Received by: _____

ABB Environmental Services, Inc.

W9603032S

MW-5

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FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other:

Project: Servall Laundry Job No.: 2455-30 Date: 1/14/99

Sample No. (ISIS): SVMWX05XXX01XX Time of Activity: Start: ~~0922~~ 0922 End: 0955

Field QC Data: ☐ Field Duplicate Collected Duplication No.: — WB

Sample Observations

Color: Clear Odor? None

Grain Size: N/A PID Reading: 0.0 Units: ~~PPM~~ WB

Saturated? N/A Other: —

Water Level/Well Data

A. Well Depth (ft): 83.98
B. Depth to Water (ft): 24.38
C. Height of Water (ft): 59.60
D. Well ID (in): 2
E. Vol (gal): 9.6
F. Historical Well Depth (ft): 86
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): .4 ft
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 28.8
J. Well Locked? Y
K. Protective Casing Secure? Y
L. Concrete Apron Intact? Y
M. Well Markings Readable? Y

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	~~USEPA 8240~~ WB	N	☒	2 X 40 ml	~~4 DEG C~~	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP 95-4	N/Y	☐		HN03	
☐ Other					HCL	

Purge Data

	~~0927~~ WB First Volume	~~0935~~ 0930 WB Second Volume	09:39 Third Volume
	09:29	09:34	
Volume	10g	20g	30g
Temp (C)	13.0 -	13.0	13.3
pH	4.72	4.87	5.10
Cond.	.245	.244	.246
Turbidity	0	0	0
D.O.	2.30	2.07	2.20

QA/QC Data

QA Sample Taken?
ISIS Code: No

QC Sample(s) Taken?
ISIS Code: No

Notes: Location data collected (ON FILE)

Signature: Chuck Step

Received by:

ABB Environmental Services, Inc.

W9603032S

FIWOM

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: ———

Project: Servall Laundry Job No.: 2455.30 Date: 1/14/98

Sample No. (ISIS): SVMWX6AXXX01XX Time of Activity: Start: 1030 End: 1125

Field QC Data: ☒ Field Duplicate Collected Duplication No.: SVMWX6AXXX01XD

Sample Observations

Color: clear Odor? None

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: /

Water Level/Well Data

A. Well Depth (ft): 62.32
B. Depth to Water (ft): 24.35
C. Height of Water (ft): 37.97
D. Well ID (in): 2
E. Vol (gal): 5.9
F. Historical Well Depth (ft): 63
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): -.4 ft
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 17.8
J. Well Locked? Yes - no key - cut lock
K. Protective Casing Secure? yes
L. Concrete Apron Intact? yes
M. Well Markings Readable? yes

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method (W60)	Filtered?	Collected?	/ Volume	Preserved?	Label No(s).
☒ VOC	~~USEPA 8240~~	(N)	☒	8 x 40 ml	~~4 DEG C~~	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP 95-4	N/Y	☐		HN03 (HCL)	
☐ Other						

Purge Data

	1038 First Volume	1045 Second Volume	1051 Third Volume	1057
Volume	6 gal	13 gal	19 gal	25 gal
Temp (C)	13.0	12.0	13.0	12.9
pH	5.76	5.78	5.79	5.80
Cond.	.561	.566	.568	.565
Turbidity	44	25	12	8
D.O.	0.92	0.90	0.81	0.97

QA/QC Data

QA Sample Taken? Yes
ISIS Code: SVMWX6AXXX01MS
~~SVMWX6AXXX01MSD~~ SVMWX6AXXX01MSD CKS
QC Sample(s) Taken? Yes
ISIS Code: SVMWX6AXXX01XD

Notes: Well location Data Collected (ON FILE)

Signature: [signature]

Received by: ———

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: —

Project: Sewell Laundry Job No.: 2455-30 Date: 1/14/99

Sample No. (ISIS): SVMWGBXXX01XX Time of Activity: Start: 12:55 End: 13:20

Field QC Data: ☐ Field Duplicate Collected Duplication No.: —

Sample Observations

Color: Clear Odor? None

Grain Size: N/A PID Reading: 1.2 Units: ppm

Saturated? N/A Other: —

Water Level/Well Data

A. Well Depth (ft): 31.42
B. Depth to Water (ft): 21.30
C. Height of Water (ft): 10.12
D. Well ID (in): 2
E. Vol (gal): 1
F. Historical Well Depth (ft): 32
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): -0.5
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 3
J. Well Locked? NO
K. Protective Casing Secure? NO
L. Concrete Apron Intact? NO
M. Well Markings Readable? YES

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☐ Bottle	☐ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	USEPA 8240	N	☒	2 X 40ml	4 DEG C	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP Method 95-1	N/Y	☐		HNO3	
☐ Other					HCL	

Purge Data

	First Volume	Second Volume	Third Volume	
Volume	1 gal	2 gal	3 gal	4 gal
Temp (C)	13.0	12.8	12.5	12.5
pH	5.36	5.38	5.40	5.41
Cond.	.271	.273	.274	.274
Turbidity	97	84	68	65
D.O.	2.66	2.05	1.97	2.04

QA/QC Data

QA Sample Taken? —

ISIS Code: —

QC Sample(s) Taken? —

ISIS Code: —

Notes: • well Cover Jammed Required Removal of Flush casing From Ground
• well location data collected (ON File)
• Well was purged using Bailer due to Pump freezing @ <0.5 gpm Flow Rate.

Signature: W. B. Judge

Received by: —

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: _____

Project: Servall LAUNDRY Job No.: 2455.30 Date: 1/13/99

Sample No. (ISIS): SVMWX09XXX01XX Time of Activity: Start: 0813 End: 0845

Field QC Data: ☐ Field Duplicate Collected Duplication No.: _____

Sample Observations

Color: Clear Odor? No

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: —

Water Level/Well Data

A. Well Depth (ft): 88.0
B. Depth to Water (ft): 13.76
C. Height of Water (ft): 74.24
D. Well ID (in): 2
E. Vol (gal): 12.6
F. Historical Well Depth (ft): 90
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): -.4 ft.
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 37.9
J. Well Locked? Y
K. Protective Casing Secure? Y
L. Concrete Apron Intact? Y
M. Well Markings Readable? Y

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	USEPA 8240	(N)	☒	2x40ml	(4 DEG C)	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	(See WKP 95-4)	N/Y	☐		HN03 (HCL)	
☐ Other						

Purge Data

	0819 First Volume	0826 Second Volume	0833 Third Volume
Volume	13	26	39
Temp (C)	11.8	11.8	11.8
pH	5.07	5.24	5.39
Cond.	.294	.288	.289
Turbidity	7	1	0
D.O.	1.73	1.48	1.88

QA/QC Data

QA Sample Taken? ISIS Code: No

QC Sample(s) Taken? ISIS Code: No

Notes: Well location data captured (ON FILE)

Signature: _____

Received by: _____

ABB Environmental Services, Inc.

W9603032S

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: _____

Project: Servall Laundry Job No.: 2455.30 Date: 1/13/94

Sample No. (ISIS): SVMWX11XXX01XX SVMWX10 CRF Time of Activity: Start: 0913 End: 1010

Field QC Data: ☐ Field Duplicate Collected Duplication No.: _____

Sample Observations

Color: Clear Odor? None

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: _____

Water Level/Well Data

A. Well Depth (ft): 88.43
B. Depth to Water (ft): 10.41
C. Height of Water (ft): 76.02
D. Well ID (in): 2
E. Vol (gal): 12.6
F. Historical Well Depth (ft): 90
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): -.4 ft
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 37.9
J. Well Locked? Y
K. Protective Casing Secure? Y
L. Concrete Apron Intact? Y
M. Well Markings Readable? Y

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	~~USEPA 8240~~ 8260	(N)	☐	2x40ml	~~4 DEG C~~ HCl	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP 95-4	N/Y	☐		HN03	
☐ Other						

Purge Data

	0920 First Volume	0927 Second Volume	0934 Third Volume
Volume	13 gal	26 gal	39 gal
Temp (C)	11.4	11.5	11.5
pH	5.76	6.14	5.95
Cond.	.324	.326	.324
Turbidity	1	0	0
D.O.	2.06	2.39	2.37

QA/QC Data

QA Sample Taken?
ISIS Code: No

QC Sample(s) Taken?
ISIS Code: No

Notes: - No key for well cap lock. (cap opened anyway).

Well location data captured (ON FILE)

Signature: Chuck Stop

Received by: _____

ABB Environmental Services, Inc.

W9603032S

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: _____

Project: Servall LAUNDRY Job No.: 2455.30 Date: 1/12/99

Sample No. (ISIS): SVMWX12XXX01XX Time of Activity: Start: 1545 End: 16:40

Field QC Data: ☐ Field Duplicate Collected Duplication No.: _____

Sample Observations

Color: clear Odor? None

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: _____

Water Level/Well Data

A. Well Depth (ft): 88.85
B. Depth to Water (ft): 17.12
C. Height of Water (ft): 71.73
D. Well ID (in): 2 in
E. Vol (gal): 11.8
F. Historical Well Depth (ft): 91
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): -.4 ft
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 35.3
J. Well Locked? Y
K. Protective Casing Secure? Y
L. Concrete Apron Intact? ~No
M. Well Markings Readable? NO

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	~~USEPA 8240~~ wb	N	☒	2 x 40 ml	4 DEG C	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP 95.4	N/Y	☐		~~HNO3~~ HCL	
☐ Other						

Purge Data

	First Volume (1627)	Second Volume (1628)	Third Volume (1635)
Volume	12 g	24 g	37 g
Temp (C)	12.5	12.4	12.1
pH	5.03	5.10	5.07
Cond.	.295	.292	.293
Turbidity	1	1	0
D.O.	2.13	2.20	2.04

QA/QC Data

QA Sample Taken?
ISIS Code: NO

QC Sample(s) Taken?
ISIS Code: NO

Notes: Broke tools while trying to remove cover. Had to remove entire casing to access well

Well LOCATION DATA captured (ON FILE)

Signature: [signature]

Received by: _____

ABB Environmental Services, Inc.

W9603032S

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: _____ Date: 1/12/99

Project: Servall Laundry Job No.: 2455.30

Sample No. (ISIS): SVMWX13XXXX01XX Time of Activity: Start: 1714 End: 1740

Field QC Data: ☐ Field Duplicate Collected Duplication No.: _____

Sample Observations

Color: Clear Odor? None

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: _____

Water Level/Well Data

A. Well Depth (ft): 96.17
B. Depth to Water (ft): 17.44
C. Height of Water (ft): 78.73
D. Well ID (in): 2
E. Vol (gal): 12.9
F. Historical Well Depth (ft): 98ft
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): -.5ft
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 39
J. Well Locked? Yes
K. Protective Casing Secure? YES
L. Concrete Apron Intact? Yes
M. Well Markings Readable? Yes

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	USEPA 8240 wdf	N	☒	2x40ml	4 DEG C	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP 95-4	N/Y	☐		HN03 HCL	
☐ Other						

Purge Data

	First Volume (1721)	Second Volume (1728)	Third Volume (1735)
Volume	14g	28g	44g
Temp (C)	11.6	11.9	11.6
pH	5.64	5.78	5.89
Cond.	.228	.230	.230
Turbidity	34	3	0
D.O.	2.49	2.14	2.24

QA/QC Data

QA Sample Taken? ✓

ISIS Code: _____

QC Sample(s) Taken? ✓

ISIS Code: _____

Notes: 11 feet from light pole: 1052 (well) West 32 ft. from parkway (E.O.R.).

Signature: Charlie Stagg

Received by: _____

MW-17

Page ___ of ___

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: ~~_____~~

Project: Servall LAUNDRY Job No.: 2455.30 Date: 1/12/99

Sample No. (ISIS): SVMWX14XXXO1XXX Time of Activity: Start: 1822 End: 19:00

Field QC Data: ☐ Field Duplicate Collected Duplication No.: ~~_____~~

Sample Observations

Color: Clear Odor? NONE

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: ~~_____~~

Water Level/Well Data

A. Well Depth (ft): 93.30
B. Depth to Water (ft): 17.64
C. Height of Water (ft): 75.66
D. Well ID (in): 2
E. Vol (gal): ~~12.5~~ 12.5

F. Historical Well Depth (ft): 96
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): -.5ft
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): ~~37.5~~ 37.4

J. Well Locked? Yes
K. Protective Casing Secure? Yes
L. Concrete Apron Intact? Yes
M. Well Markings Readable? Yes

CRS

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	~~USEPA 8240~~ 8260	N	☒	2x40 ml	4 DEG C	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP 95.4	N/Y	☐		~~HNO3~~ HCL	
☐ Other						

Purge Data

	First Volume (1828.5)	Second Volume (1835)	Third Volume (1842)
Volume	12.5	25	37
Temp (C)	11.0	11.3	11.2
pH	5.24	5.41	5.44
Cond.	.262	.269	.266
Turbidity	1	0	0
D.O.	2.13	2.36	2.04

QA/QC Data

QA Sample Taken? ISIS Code: No

QC Sample(s) Taken? ISIS Code: No

Notes: 54' from pole #056
42' from e.o.R

Signature: Chris Kent

Received by: ~~_____~~

ABB Environmental Services, Inc.

W9603032S

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: ~~~

Project: Servall Laundry Job No.: 2455.30 Date: 1/13/99

Sample No. (ISIS): SVMWX15XXX01XX Time of Activity: Start: 1050 End: 1120

Field QC Data: ☐ Field Duplicate Collected Duplication No.: ~~~

Sample Observations

Color: Clear Odor? None

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: ~~~

Water Level/Well Data

A. Well Depth (ft): 97.22
B. Depth to Water (ft): 17.87
C. Height of Water (ft): 79.35
D. Well ID (in): 2
E. Vol (gal): 13 gal
F. Historical Well Depth (ft): 99
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): -.4 ft
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 39 gal
J. Well Locked? Y
K. Protective Casing Secure? Y
L. Concrete Apron Intact? Y
M. Well Markings Readable? Y

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	~~USEPA 8240~~	N	☒	2x40ml	4 DEG C	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP 95-4	N/Y	☐		HN03	
☐ Other					HCL	

Purge Data

	First Volume (1057)	Second Volume (1104)	Third Volume (1111)
Volume	14 gal	28 gal	42 gal
Temp (C)	11.9	11.8	11.9
pH	6.16	6.25	6.30
Cond.	.261	.280	.291
Turbidity	10	2	0
D.O.	2.12	2.34	2.22

QA/QC Data

QA Sample Taken?
ISIS Code: No

QC Sample(s) Taken?
ISIS Code: No

Notes: Missing locking bar. No key for Master Lock well accessable

Signature: ~~~

Received by: ~~~

well location Data collected (ON FILE)

ABB Environmental Services, Inc.

W9603032S

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: —

Project: Servall LAUNDRY Job No.: 2455.30 Date: 1/13/99

Sample No. (ISIS): ~~SVMW23SXXX01XX~~ SVMW23SXXX01XX Time of Activity: Start: 1234 End: 1325

Field QC Data: ☐ Field Duplicate Collected Duplication No.: —

Sample Observations

Color: Clear Odor? None

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: —

Water Level/Well Data

A. Well Depth (ft): 69.0
B. Depth to Water (ft): 6.52
C. Height of Water (ft): 62.48
D. Well ID (in): 2
E. Vol (gal): 103
F. Historical Well Depth (ft): ~~88~~ 70
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): -.25 ft
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 31
J. Well Locked? Y
K. Protective Casing Secure? Y
L. Concrete Apron Intact? Y
M. Well Markings Readable? No

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	USEPA 8240	N	☒	2x40 ml	4 DEG C	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP 95-4	N/Y	☐		HN03 HCl	
☐ Other						

Purge Data

	First Volume (1239)	Second Volume (1244)		Third Volume (1250)		1301	1307
Volume	10.00 gal	20.00 gal	31	41.0 gal		52	63
Temp (C)	12.0	12.0	12.1	12.1	12.2	12.3	
pH	5.75	5.97	5.80	5.74	5.70	5.46	
Cond.	.071	.069	.073	.071	.071	.072	
Turbidity	262	84	55	30	26	24	
D.O.	1.67	1.60	1.60	1.64	1.60	1.69	

QA/QC Data

QA Sample Taken? No
ISIS Code: —

QC Sample(s) Taken? No
ISIS Code: —

Notes:

vol	74
Temp	12.3
pH	5.60
Cond	.071
Turb	22
DO	1.37
	1313

Signature: Chuck Hopkins

Received by: —

W9603032S

ABB Environmental Services, Inc.

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☒ Groundwater ☐ Other: _____

Project: Servall LAUNDRY Job No.: 2455.30 Date: 1/13/99

Sample No. (ISIS): SVMW23DXXX01XX Time of Activity: Start: 13.39 End: 1540

Field QC Data: ☐ Field Duplicate Collected Duplication No.: _____

Sample Observations

Color: slight yellow Odor? NONE

Grain Size: N/A PID Reading: 0.0 Units: ppm

Saturated? N/A Other: _____

Water Level/Well Data

A. Well Depth (ft): 87.30
B. Depth to Water (ft): 5.64
C. Height of Water (ft): 81.66
D. Well ID (in): 2
E. Vol (gal): 13.2
F. Historical Well Depth (ft): 88
G. Measured from: ☐ Riser ☒ Casing
H. Casing Stick-up (ft): -.25 ft
I. Diff Well and Casing (ft): N/A
J. Purge Volume (gal or ft³): 39.6
J. Well Locked? Y
K. Protective Casing Secure? Y
L. Concrete Apron Intact? Y
M. Well Markings Readable? No

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☒ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☐ Lab-provided Blank Water
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	Volume	Preserved?	Label No(s).
☒ VOC	USEPA 8240	N	☒	2X40ml	4 DEG C	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP 95.4	N/Y	☐		HNO3	
☐ Other					HCL	

Purge Data

	First Volume	Second Volume		Third Volume	
	1358	1407	1431	1459	1528
Volume	14 gal	28 gal	32 gal	46	60
Temp (C)	13.0	13.1	12.0	11.9	10.9
pH	4.89	5.42	5.44	5.35	5.28
Cond.	.236	.176	.127	.125	.119
Turbidity	592	402	195	71	41
D.O.	1.22	2.09	1.12	1.07	1.03

QA/QC Data

QA Sample Taken?
ISIS Code: No

QC Sample(s) Taken?
ISIS Code: No

Notes: pumping 1.5 to 2 gal/min - - over pumped - slowed rate to 1 gal/min at 1350
1420 - well pump dry - lower pump 10 ft. pump at .5 gal/min.

Signature: Chuck Dept

Received by: _____

5th AVE. EAST, over Rt 27 (SUNRISE HWY), Left ON ROSEVELT, Left ON DRUSE

Bear right (90° curve), TURNS into FORKAL - Continue EAST TO DEAD END CALDESAC.

FIELD DATA RECORD

Check one: ☐ Vapor ☐ Soil ☐ Groundwater ☒ Other: Rinsate

Project: Servall Laundry Job No.: 2455-30 Date: 1/14/98

Sample No. (ISIS): SVQS XXXXXX 01 XX Time of Activity: Start: 14:25 End: 14:30

Field QC Data: ☐ Field Duplicate Collected Duplication No.: —

Sample Observations

Color: Clear Odor? None

Grain Size: N/A PID Reading: N/A Units: —

Saturated? N/A Other: —

Water Level/Well Data

A. Well Depth (ft): —
B. Depth to Water (ft): —
C. Height of Water (ft): —
D. Well ID (in): —
E. Vol (gal): —
F. Historical Well Depth (ft): —
G. Measured from: ☐ Riser ☐ Casing
H. Casing Stick-up (ft): —
I. Diff Well and Casing (ft): —
J. Purge Volume (gal or ft^3): —
J. Well Locked?
K. Protective Casing Secure?
L. Concrete Apron Intact?
M. Well Markings Readable?

Equipment Documentation

Monitoring	Sampling	Decontamination Fluids Used
☐ PID	☒ Bottle	☒ Liquinox
☐ RAD Meter	☐ Spatula	☒ De-ionized Water
☐ Explosimeter	☐ Alum Pan	☒ Lab-provided Blank Water (FOR SAMPLE)
☐ O_2	☐ Gas bulbs/Tedlar Bags	☐ Potable Water
☐ CO_2	☐ Other:	☐ Methanol
☐ Other		

Analytical Parameters

Type	Method	Filtered?	Collected?	/ Volume	Preserved?	Label No(s).
☒ VOC	USEPA 8240	N	☒	2X 40ml	4 DEG C	
☐ SVOC	USEPA 8270	N	☐		4 DEG C	
☐ METALS*	See WKP Method 95-4	N/Y	☐		HNO3	
☐ Other					HCL	

Purge Data

	First Volume	Second Volume	Third Volume
Volume			
Temp (C)	-		
pH			
Cond.		WB	
Turbidity			
D.O.			

QA/QC Data

QA Sample Taken?

ISIS Code: —

QC Sample(s) Taken?

ISIS Code: —

Notes:

Signature: WB Judge

Received by: —

ABB Environmental Services, Inc.

W9603032S

APPENDIX B

FIELD INSTRUMENT CALIBRATION RECORD

FIELD INSTRUMENTATION CALIBRATION DATA RECORD

Project _____ Site Servall Laundry Bayshore, NY

Project No. 2455-30 Sampler Signature [signature]

Date 1/12/99

Field Instrumentation Calibration Data

Equipment Type/I.D.	Battery Condition	Calibration Information
_____	_____	pH 4 ____ pH 7 ____ pH 10____
_____	_____	pH 4 ____ pH 7 ____ pH 10____
_____	_____	pH 4 ____ pH 7 ____ pH 10____
_____	_____	Cond. Std. ____/____ Cond. Std. ____/____
_____	_____	Cond. Std. ____/____ Cond. Std. ____/____
_____	_____	Cond. Std. ____/____ Cond. Std. ____/____

Dissolved Oxygen

_____ _____ Avg. Winkler Value_____ ppm Meter Value_____ ppm

Redox

_____ _____ Zobell Sol. Value _____ Meter Value____

Photoionization Detector (PID)

NYS DEC #3 Good Zero/Zero Air? ☑Yes ☐No Span Gas Value 100.0 ppm Equiv.

Meter Value 105.1 ppm Equiv.

_____ _____ Zero/Zero Air? ☐Yes ☐No Span Gas Value_____ ppm Equiv.

Meter Value _____ ppm Equiv.

Other

Horiba NYS DEC 12 ✓

pH	4.01
Cond	4.53
Turb	0
DO	11.25
Temp	10.8
Sal	.22

FIELD INSTRUMENTATION CALIBRATION DATA RECORD

Project 2455.30 Site Servall Laundry BAYSHORE, NY

Project No. 2455.30 Sampler Signature Chris Kent

Date 1/14/98

Field Instrumentation Calibration Data

Equipment Type/I.D.	Battery Condition	Calibration Information
_____	_____	pH 4 ____ pH 7 ____ pH 10____
_____	_____	pH 4 ____ pH 7 ____ pH 10____
_____	_____	pH 4 ____ pH 7 ____ pH 10____
_____	_____	Cond. Std. ____/____ Cond. Std. ____/____
_____	_____	Cond. Std. ____/____ Cond. Std. ____/____
_____	_____	Cond. Std. ____/____ Cond. Std. ____/____

Dissolved Oxygen

_____ _____ Avg. Winkler Value____ ppm Meter Value____ ppm

Redox

_____ _____ Zobell Sol. Value ____ Meter Value____

Photoionization Detector (PID)

NYSDEC -3 good Zero/Zero Air? ☑Yes ☐No Span Gas Value 100 ppm Equiv.

Lot 53590 - Air

Lot 53988 - span Meter Value 103 ppm Equiv.

_____ _____ Zero/Zero Air? ☐Yes ☐No Span Gas Value____ ppm Equiv.

Meter Value ____ ppm Equiv.

Other

Horiba NYDEC-12 good

pH	3.98	4.01
Cond	4.51	4.55
Turb	0	0
DO	11.16	10.37
Temp	11.6	12.9
Sal	.22	0.23

Put in new calibration solution & RECALIBRATED

FIELD INSTRUMENTATION CALIBRATION DATA RECORD

Project Servall Site Servall Monitoring Wells BAYSHORE, NY.

Project No. 2455.30 Sampler Signature Charles Step

Date 1/13/98

Field Instrumentation Calibration Data

Equipment Type/I.D.	Battery Condition	Calibration Information
_____	_____	pH 4 ____ pH 7 ____ pH 10____
_____	_____	pH 4 ____ pH 7 ____ pH 10____
_____	_____	pH 4 ____ pH 7 ____ pH 10____
_____	_____	Cond. Std. ____/____ Cond. Std. ____/____
_____	_____	Cond. Std. ____/____ Cond. Std. ____/____
_____	_____	Cond. Std. ____/____ Cond. Std. ____/____

Dissolved Oxygen

_____ _____ Avg. Winkler Value____ ppm Meter Value____ ppm

Redox

_____ _____ Zobell Sol. Value ____ Meter Value____

Photoionization Detector (PID)

NYSDEC 3 good Zero/Zero Air? ☒Yes ☐No Span Gas Value 100 ppm Equiv.

Meter Value 106.1 ppm Equiv.

_____ _____ Zero/Zero Air? ☐Yes ☐No Span Gas Value____ ppm Equiv.

Meter Value ____ ppm Equiv.

Other

Horiba NYSDEC-12 good

pH 4.02
Cond. 4.49
Turb 6
D.O 10.40
Temp. 13.0°C
Sal. 0.22

APPENDIX C

CHAIN OF CUSTODY RECORDS

CHAIN OF CUSTODY RECORD

PROJECT NO. 2455-30

PROJECT NAME SERIAL LAUNDRY / NYSDEC

SAMPLERS (SIGNATURE) W B Judge

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: VOA CLP	SAMPLE TYPE: METHOD 95-4	REMARKS: INDICATE SOIL/WATER/AIR SEDIMENT/SLUDGE
	1/14	11:20		✓	SVMWX6AXXX01MS	2-40ml		WB	Groundwater (HCL)
	1/14	13:20		✓	SVMWX6BXXX01XX				
	1/13	19:35		✓	SVMWX01XXX01XX				
	1/14	0840		✓	SVMWX02XXX01XX				
	1/14	09:55		✓	SVMWX05XXX01XX			WB	
	1/14	11:25		✓	SVMWX6AXXX01MSD				
	1/14	11:15		✓	SVMWX6AXXX01XD				
	1/14	11:10		✓	SVMWX6AXXX01XX				
	1/14	—	—	—	TRIP BLANK				
	1/14	12:45		✓	SVMWX04XXX01XX				
	1/14	14:30		✓	SVQSXXXXX01XX				
								WB	

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
W B Judge	11/14/99 1600				
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR DISPOSAL BY: (SIGNATURE)	DATE/TIME	REMARKS	
					HZM LABS, INC P.O. ME98-05-01 RETURN DATA TO GLENN DAUKAS, P.M. HLA (207) 775-5401

OH-62

ABB Environmental Services, Inc.
HARDING LAWSON ASSOCIATES

CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT NO. 2455-30

PROJECT NAME SERVALL LAUNDRY / NPL SDEC

SAMPLERS (SIGNATURE) W.B. Judge

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	SAMPLE TYPE: VOA CLP METHOD 95-4	REMARKS: INDICATE SOIL/WATER/AIR SEDIMENT/SLUDGE
	1/12	17:40		✓	SVMWX13XXX01XX	2	WB Judge	Groundwater (HCL)
	1/12	12:35		✓	SVMWX3BXXX01XX			
	1/12	12:00		✓	SVMWX3AXXX01XX			
	1/12	19:00		✓	SVMWX14XXX01XX			
	1/12	16:40		✓	SVMWX12XXX01XX			
	1/13	10:10		✓	SVMWX11XXX01XX			
	1/13	08:45		✓	SVMWX09XXX01XX			
	1/13	11:20		✓	SVMWX15XXX01XX			
	1/13	13:25		✓	SVMW23SXXX01XX			
	1/13	15:40		✓	SVMW23DXXX01XX			

W.B Judge

Note: TRIP BLANK NOT IDENTIFIED ON COC HZM LABS RECOGNIZED AND VERIFIED THE PRESENCE OF THE SAMPLE IN THE DAYS INVENTORY WB, HLA 1/13-14

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
W B Judge	1/13/99 17:10	Mary Reed	Mary Reed	1/13/99	
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR DISPOSAL BY: (SIGNATURE)	DATE/TIME	REMARKS	HZM LABS, INC. P.O. ME-98-05-01 RETURN DATA TO GLEN DAUKAS, P.M. HLA (207) 775-5401

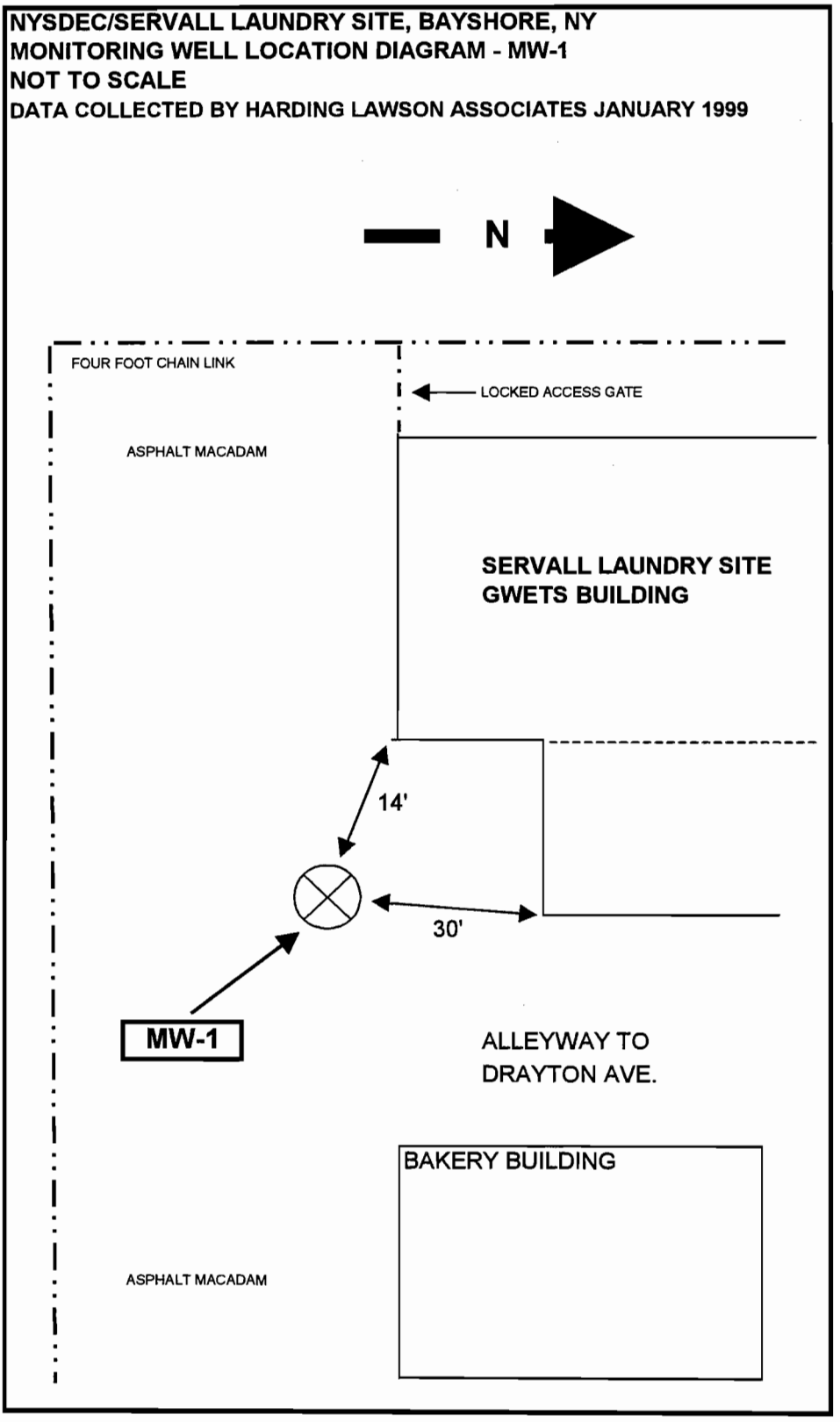
~~ABB Environmental Services, Inc.~~
HARDING LAWSON ASSOCIATES

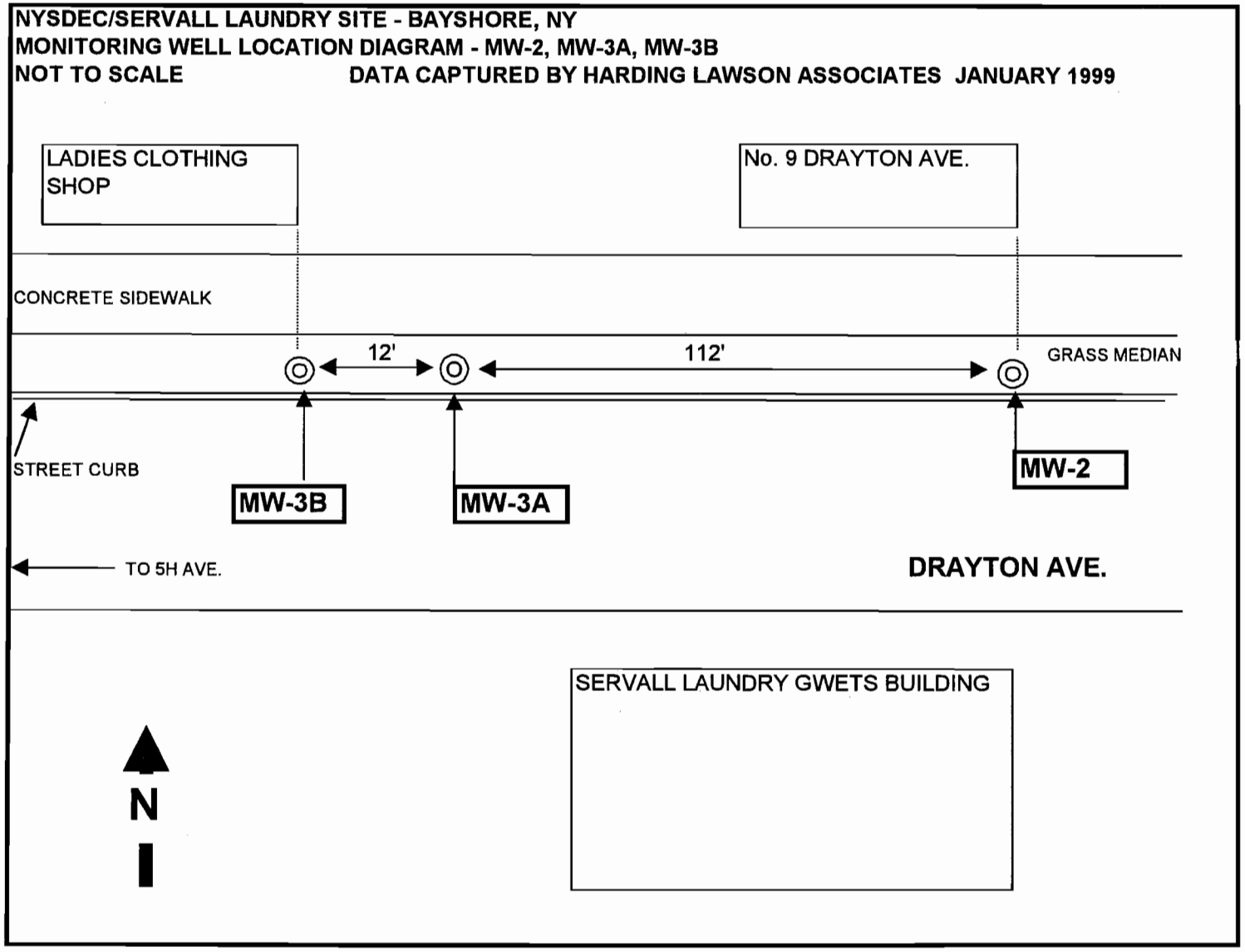
OH-62

APPENDIX D

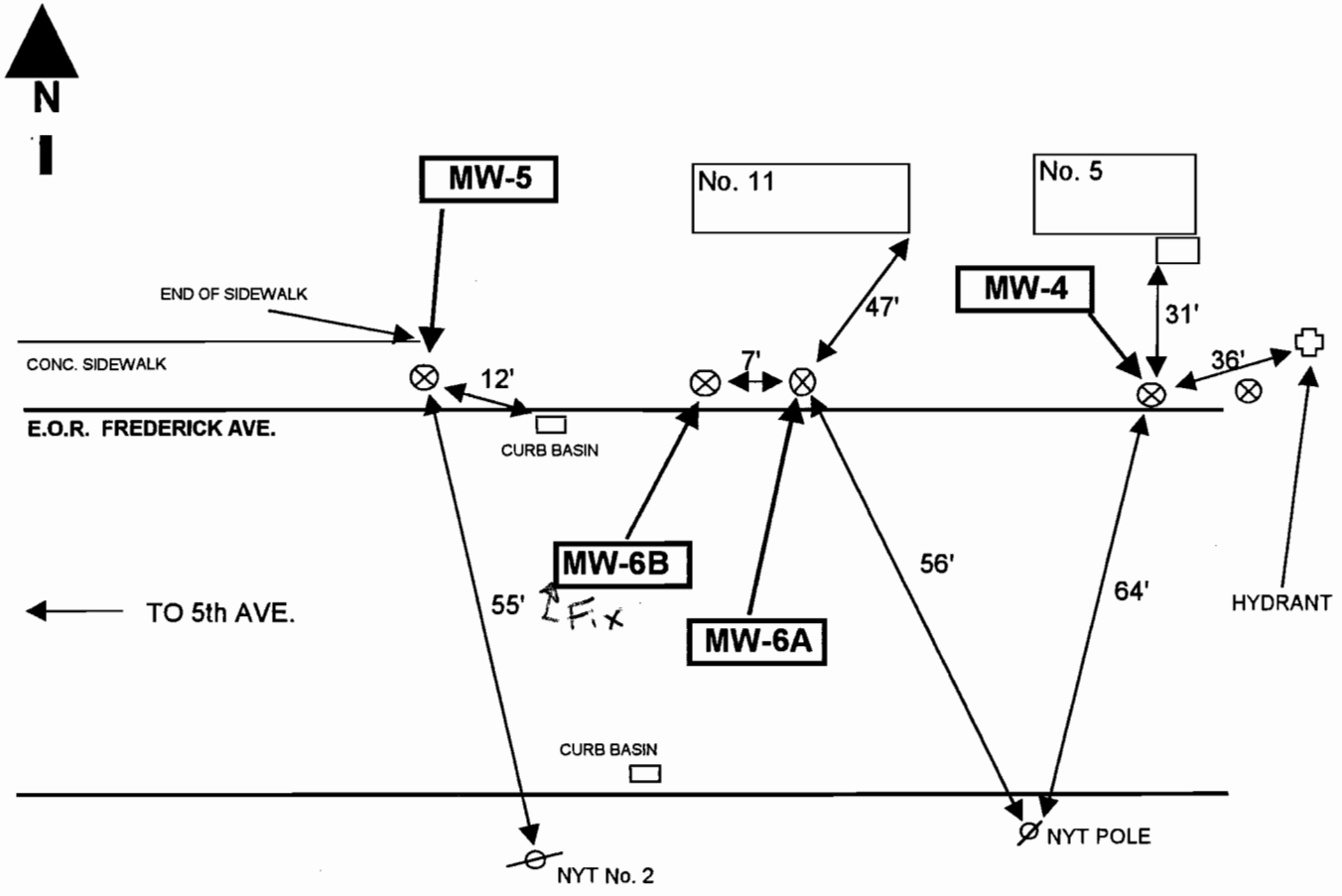
MONITORING WELL LOCATION DIAGRAMS

NYSDEC/SERVALL LAUNDRY SITE, BAYSHORE, NY
MONITORING WELL LOCATION DIAGRAM - MW-1
NOT TO SCALE
DATA COLLECTED BY HARDING LAWSON ASSOCIATES JANUARY 1999

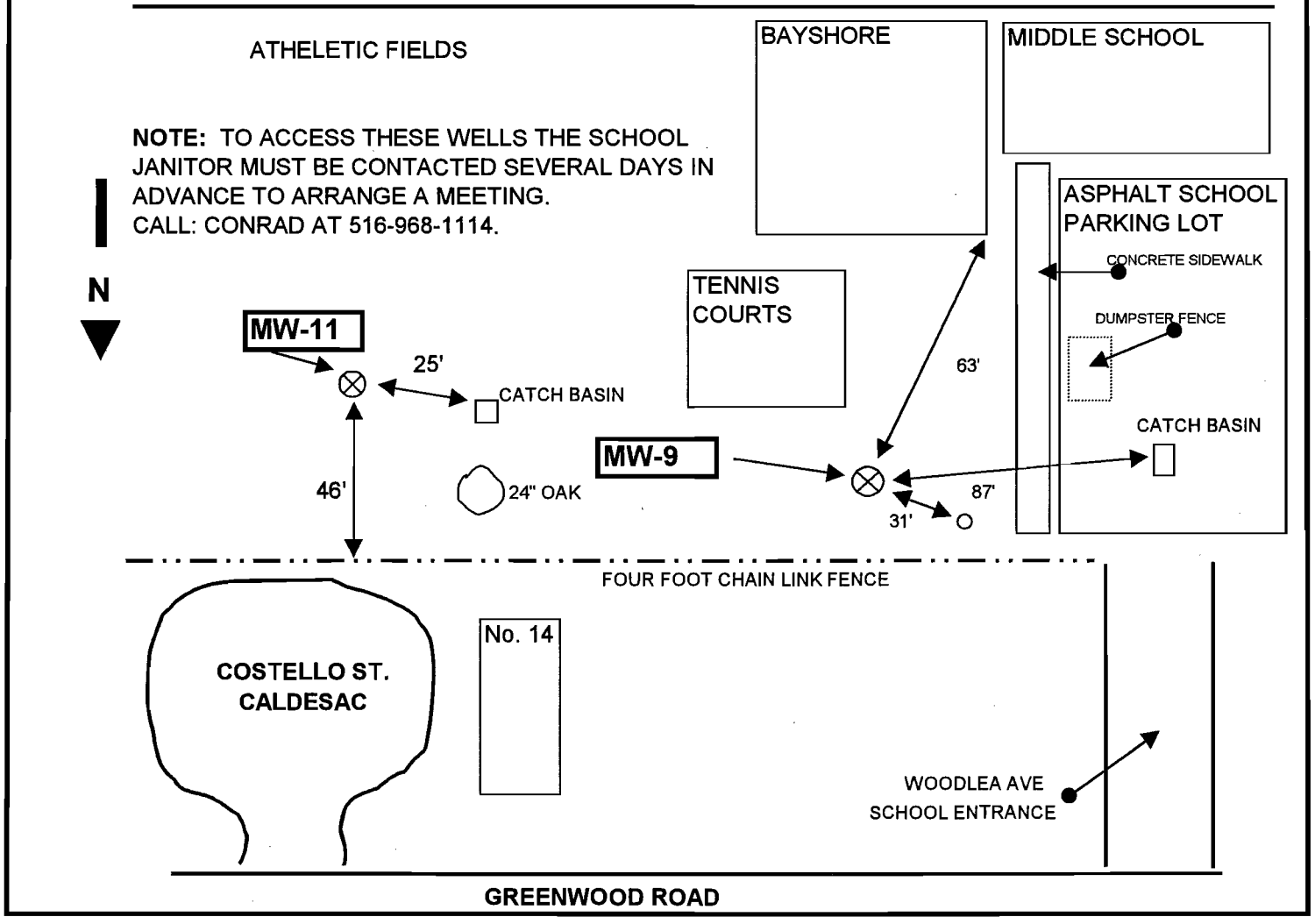



NYSDEC/SERVALL LAUNDRY SITE - BAYSHORE, NY
MONITORING WELL LOCATION DIAGRAM - MW-2, MW-3A, MW-3B
NOT TO SCALE
DATA CAPTURED BY HARDING LAWSON ASSOCIATES JANUARY 1999
LADIES CLOTHING SHOP
No. 9 DRAYTON AVE.
CONCRETE SIDEWALK
12'
112'
GRASS MEDIAN
STREET CURB
MW-3B
MW-3A
MW-2
TO 5H AVE.
DRAYTON AVE.
SERVALL LAUNDRY GWETS BUILDING
N

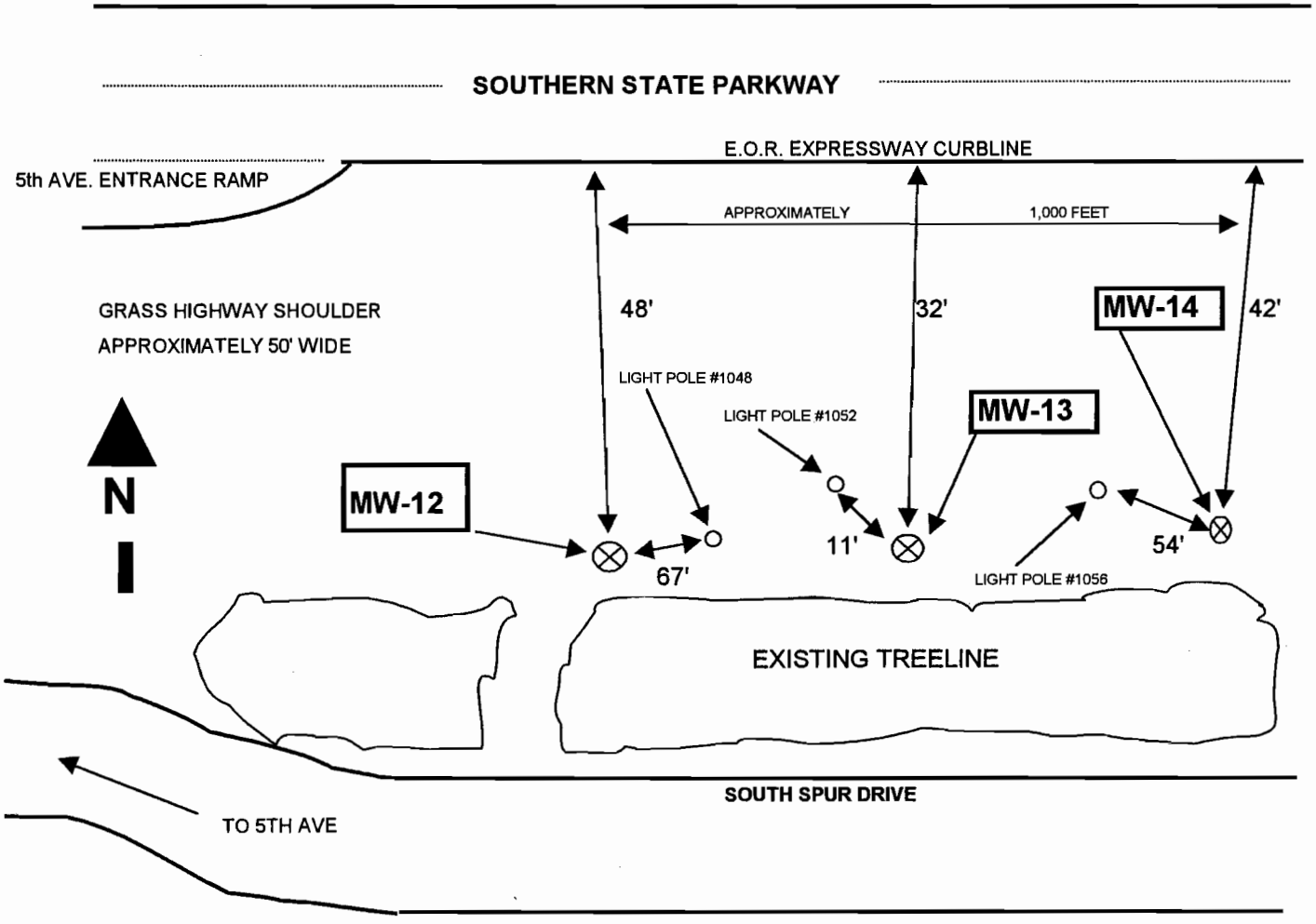
NYSDEC/SERVALL LAUNDRY SITE, BAYSHORE, NY
MONITORING WELL LOCATION DAIGRAM - MW-4, MW-5, MW-6A, MW6B
NOT TO SCALE
DATA COLLECTED BY HARDING LAWSON ASSOCIATES JANUARY 1999

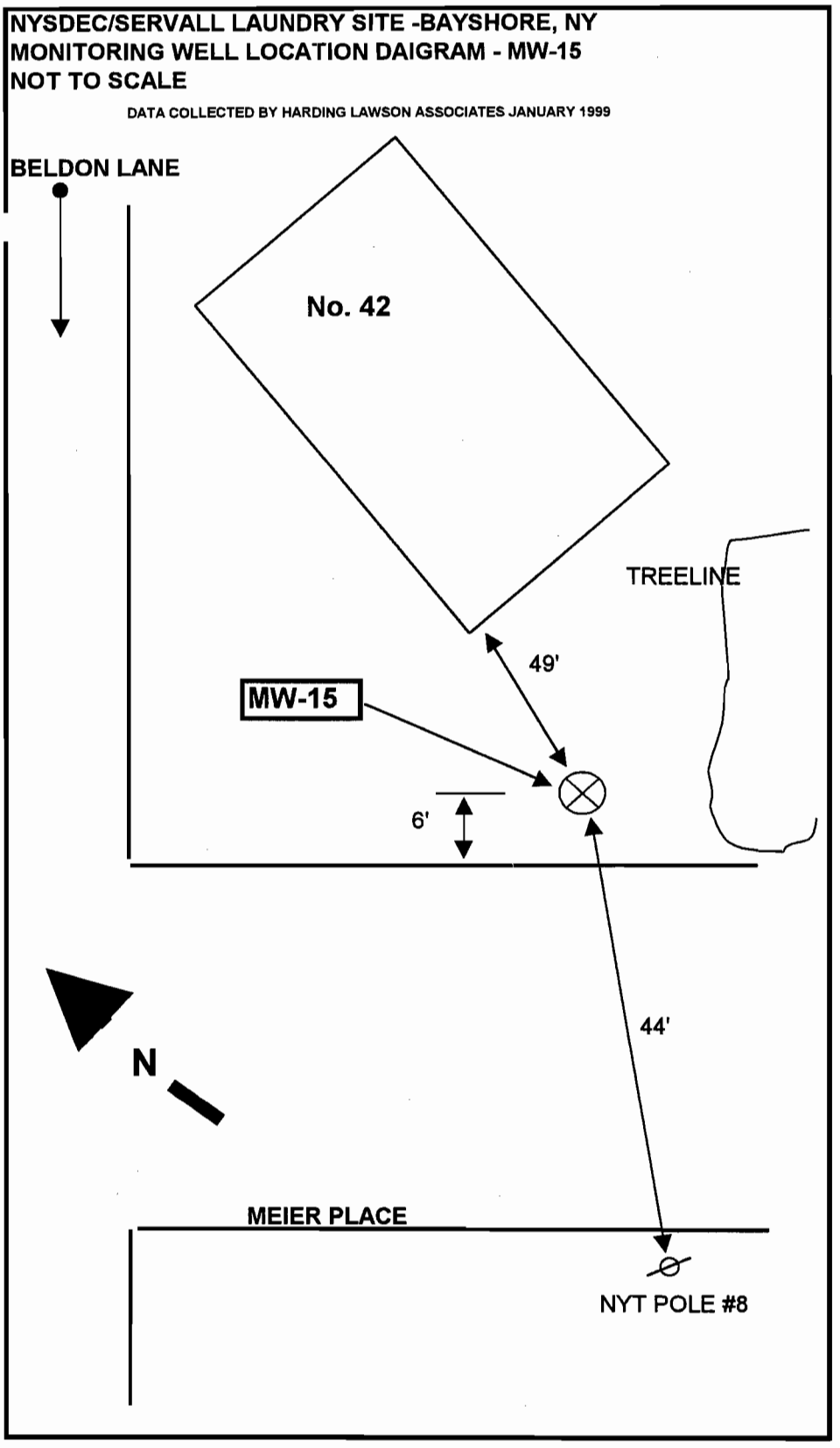


NYSDEC/SERVALL LAUNDRY SITE - BATSHORE, NY
MONITORING WELL LOCATION DIAGRAM - MW-11, MW-9
NOT TO SCALE **DATA OLLECTED BY HARDING LAWON ASSOCIATES JANUARY 1999**

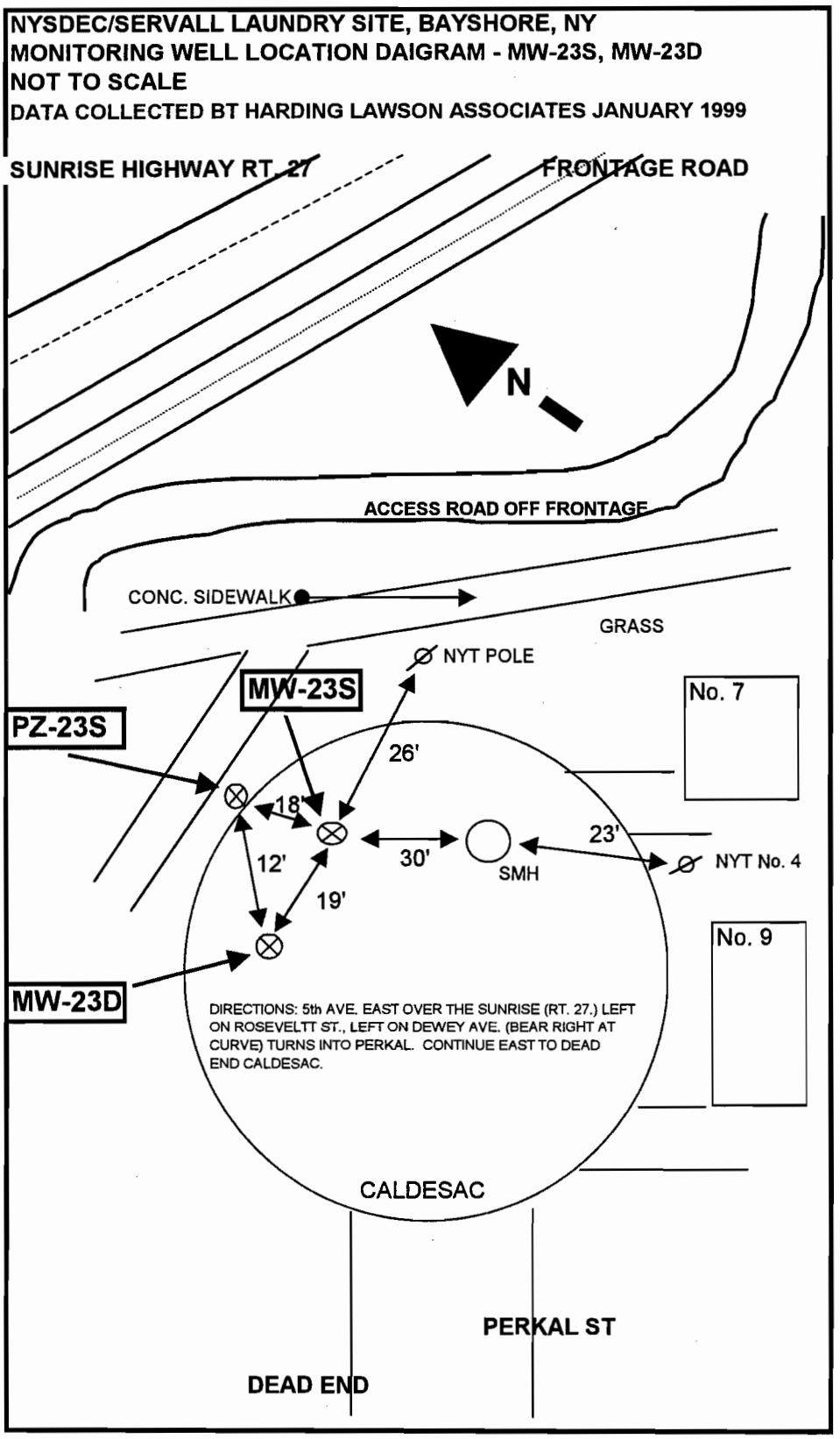


NYSDEC/SERVALL LAUNDRY SITE - BAYSHORE, NY
MONITORING WELL LOCATION DIAGRAM - MW-12, MW-13, MW-14
NOT TO SCALE DATA CAPTURED BY HARDING LAWSON ASSOCIATES JANUARY 1999




NYSDEC/SERVALL LAUNDRY SITE -BAYSHORE, NY
MONITORING WELL LOCATION DAIGRAM - MW-15
NOT TO SCALE
DATA COLLECTED BY HARDING LAWSON ASSOCIATES JANUARY 1999
BELDON LANE
No. 42
TREELINE
49'
MW-15
6'
44'
N
MEIER PLACE
NYT POLE #8

NYSDEC/SERVALL LAUNDRY SITE, BAYSHORE, NY
MONITORING WELL LOCATION DAIGRAM - MW-23S, MW-23D
NOT TO SCALE
DATA COLLECTED BT HARDING LAWSON ASSOCIATES JANUARY 1999



APPENDIX E

DATA USABILITY SUMMARY REPORT

NYSDEC DATA USABILITY SUMMARY REPORT
REMEDIAL INVESTIGATION FEASIBILITY STUDY (RI/FS)

SERVALL LAUNDRY, BAY SHORE, NEW YORK
SITE NO. 1-52-077

Data review was performed groundwater samples collected at the Servall Laundry, Bay Shore, NY site. The samples were analyzed by the NYDEC certified laboratory, H2M LABS, Inc. Melville, New York. Analyses included the used of NYSDEC ASP 10/95 methods for low concentration volatile organic compounds (VOCs) using NYDEC Method 95-4.

The data review procedures were completed in accordance with New York State Department of Environmental Conservation Division of Environmental Remediation Guidance for the Development of Data Usability Summary Reports. The data quality review was completed by the HLA project chemist. The data review process included review of: hold times, blank contamination, instrument tunings, calibration standards, calibration verifications, surrogate percent recoveries (%Rs), matrix spike/matrix spike duplicate (MS/MSD) %R and relative percent differences (RPDs), and laboratory control samples (LCS) %Rs. A subset of results in data tables presented in this Appendix have been qualified during the data quality review. Qualifiers were added to the results in accordance with USEPA guidelines (USEPA, 1994).

With the exception of data quality discussions presented below, quality control sample results associated with field sample data for VOCs indicates that all data can be used as reported by the laboratory and no sample results were determined to be non-usable or rejected. A subset of target compound results have been qualified J indicating the values are estimated. The J qualifier is applied to results that are detected at concentrations less than the contract required quantitation limits (CRQL). Additional results for vinyl chloride, trichloroethene, and tetrachloroethene åre qualified as estimated due to calibration check standard response falling outside validation guideline control limits. Uncertainty related to the estimation of results is interpreted to be minimal. QC checks are summarized below:

Hold Times

All analytical hold time requirements were met.

Blanks

Target compounds were not reported in any laboratory method blanks. VOCs methylene chloride (1 µg/L) was reported in one equipment rinse blank (QS01XX). Methylene chloride was not reported in any field sample.

Initial Calibration Verification

All initial calibration verification criteria were met.

Continuing Calibration Verification

Continuing calibration verification criteria were met for all compounds with the exception of vinyl chloride and tetrachloroethene for samples analyzed on 1/23 and trichloroethene on 1/24. QC limits of 25 % difference were exceeded with percent difference of 35% for vinyl chloride, 31% for tetrachloroethene, and 35% for trichloroethene. All results associated with these calibration standards were qualified as estimated. This does not represent a gross difference in calibration response, and the degree of estimation associated with these results is interpreted to be small.

Instrument Tune Criteria

All instrument-tuning criteria were met.

Internal Standards and Surrogates

All internal standard response criteria and surrogate recoveries were met.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

All MS/MSD criteria were met.

Laboratory Control Samples (LCS)

All LCS recovery criteria were met.

Field Duplicates

One field duplicate was collected in association with the data set (X6AXXX01XD). Several target compounds were reported at the method quantitation limits in the duplicate, but not in the original sample. Compounds include cis and trans-1,2-dichoroethene and tetrachloroethene. Results for these compounds in the original and field duplicate sample were qualified as estimated J.

Tentatively Identified Compounds (TICs)

With the exception of samples X01XXX01XX and X3BXXX01XX, TICs were not detected in the water samples. The TIC 2-methoxy-2-methylpropane was reported in X01XXX01XX and X3BXXX01XX at concentrations of 53 µg/L and 6 µg/L, respectively. Based on a review of the mass spectra, this compound was determined to be methyl-tert-butyl-ether (MTBE). The reported concentrations are considered estimated because the MTBE was not quantified using a calibration standard.

References:

U.S. EPA Office of Solid Waste and Emergency Response, "USEPA Contract Laboratory Program National Functional Guidelines For Organic Data Review", February 1994.

New York State Department of Environmental Conservation, Division of Environmental Remediation, "Data Usability Summary Report Guidelines, ASP, 1995.

PROJECT: Servall

Analytical Data Summary Table

HLA SAMPLE ID:	TB1/12	TB1/14	SVQSXXX01XX	SV01XXX01XX	SV02XXX01XX	SV3AXXX01XX
LAB NUMBER:	9901091	9901162	9901161	9901152	9901153	9901081
DATE SAMPLED:	1/12/99	1/14/99	1/14/99	1/13/99	1/14/99	1/12/99
DATE ANALYZED:	1/23/99	1/24/99	1/24/99	1/24/99	1/24/99	1/23/99
ANALYTE	CRQL					
Chloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	1	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1	1 U	1 U	1 U	1 U	1 UJ	1 UJ
Chloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	2	2 U	2 U	1 J	2 U	2 U	2 U
Acetone	5	5 U	5 U	5 U	5 U	8	5 U
Carbon Disulfide	1	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene (cis)	1	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene (trans)	1	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	1	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	5	5 U	5 U	5 U	5 U	5 U	5 U
Bromochloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1	1 U	1 U	1 U	1 U	1	1 U
Carbon Tetrachloride	1	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1	1 U	1 U	1 UJ	1 U	1 U	0.7 J
Dibromochloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1	1 U	1 U	1 U	1 U	1 U	1 U

PROJECT: Servall

Analytical Data Summary Table

HLA SAMPLE ID:		TB1/12	TB1/14	SVQSXXX01XX	SV01XXX01XX	SV02XXX01XX	SV3AXXX01XX
LAB NUMBER:		9901091	9901162	9901161	9901152	9901153	9901081
DATE SAMPLED:		1/12/99	1/14/99	1/14/99	1/13/99	1/14/99	1/12/99
DATE ANALYZED:		1/23/99	1/24/99	1/24/99	1/24/99	1/24/99	1/23/99
ANALYTE	CRQL						
Bromoform	1	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	5	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	5	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	1	1 U	1 U	1 U	1 J	1 UJ	1 UJ
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	1	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	1	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	1	1 U	1 U	1 U	1 U	1 U	1 U
o/p-Xylene	1	1 U	1 U	1 U	1 U	1 U	1 U
m-Xylenes	1	1 U	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1	1 U	1 U	1 U	1 U	1 U	1 U
1,2--Dibromo-3-chloropropan	1	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1	1 U	1 U	1 U	1 U	1 U	1 U
Dilution Factor:		1	1	1	1	1	1
Associated Method Blank:		BLK001	BLK001	BLK002	BLK002	BLK002	BLK002
Associated Equipment Blank:		QS01XX	QS01XX		QS01XX	QS01XX	QS01XX
Associated Trip Blank:				TB1/14	TB1/14	TB1/14	TB1/14

PROJECT: Servall

Analytical Data Summary Table

HLA SAMPLE ID:		SV3BXXX01XX	SV04XXX01XX	SV05XXX01XX	SV6AXXX01XD	SV6AXXX01XX
LAB NUMBER:		9901082	9901154	9901155	9901158	9901159
DATE SAMPLED:		1/12/99	1/14/99	1/14/99	1/14/99	1/14/99
DATE ANALYZED:		1/23/99	1/24/99	1/24/99	1/24/99	1/24/99
ANALYTE	CRQL					
Chloromethane	1	1 U	1 U	1 U	1 U	1 U
Bromomethane	1	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1	1 UJ	1 UJ	1 UJ	1 UJ	1 UJ
Chloroethane	1	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	2	2 U	2 U	2 U	2 U	2 U
Acetone	5	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	1	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1	1 U	1 U	0.8 J	1 U	1 U
1,1-Dichloroethane	1	1 U	1 U	4	1 J	1 U
1,2-Dichloroethene (cis)	1	2	1 U	1 U	1 J	1 U
1,2-Dichloroethene (trans)	1	1 U	1 U	1 U	1 U	1 U
Chloroform	1	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	1	1 U	1 U	1 U	1 U	1 U
2-Butanone	5	5 U	5 U	5 U	5 U	5 U
Bromochloromethane	1	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1	1 U	2	16	0.6 J	1 U
Carbon Tetrachloride	1	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1	1 U	0.5 J	0.6 J	1 U	1 U
Dibromochloromethane	1	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U
Benzene	1	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1	1 U	1 U	1 U	1 U	1 U

PROJECT: Servall

Analytical Data Summary Table

HLA SAMPLE ID:		SV3BXXX01XX	SV04XXX01XX	SV05XXX01XX	SV6AXXX01XD	SV6AXXX01XX
LAB NUMBER:		9901082	9901154	9901155	9901158	9901159
DATE SAMPLED:		1/12/99	1/14/99	1/14/99	1/14/99	1/14/99
DATE ANALYZED:		1/23/99	1/24/99	1/24/99	1/24/99	1/24/99
ANALYTE	CRQL					
Bromoform	1	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	5	5 U	5 U	5 U	5 U	5 U
2-Hexanone	5	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	1	1 UJ	1 UJ	3 J	1 J	1 UJ
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	1	1 U	1 U	1 U	1 U	1 U
Toluene	1	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	1	1 U	1 U	1 U	1 U	1 U
o/p-Xylene	1	1 U	1 U	1 U	1 U	1 U
m-Xylenes	1	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1	1 U	1 U	1 U	1 U	1 U
1,2--Dibromo-3-chloropropan	1	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1	1 U	1 U	1 U	1 U	1 U
Dilution Factor:		1	1	1	1	1
Associated Method Blank:		BLK002	BLK002	BLK002	BLK002	BLK002
Associated Equipment Blank:		QS01XX	QS01XX	QS01XX	QS01XX	QS01XX
Associated Trip Blank:		TB1/14	TB1/14	TB1/14	TB1/14	TB1/14

PROJECT: Servall

Analytical Data Summary Table

	HLA SAMPLE ID:	SV6BXXX01XX	SV09XXX01XX	SV11XXX01XX	SV12XXX01XX	SV13XXX01XX
	LAB NUMBER:	9901160	9901083	9901084	9901085	9901086
	DATE SAMPLED:	1/14/99	1/13/99	1/13/99	1/13/99	1/12/99
	DATE ANALYZED:	1/24/99	1/23/99	1/24/99	1/23/99	1/24/98
ANALYTE	CRQL					
Chloromethane	1	1 U	1 U	1 U	1 U	1 U
Bromomethane	1	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	1	1 UJ	1 UJ	4 J	1 UJ	1 UJ
Chloroethane	1	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	2	2 U	2 U	2 U	2 U	2 U
Acetone	5	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	1	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1	1 U	2	1 U	1 U	12
1,1-Dichloroethane	1	1 U	2	1 U	2 U	1
1,2-Dichloroethene (cis)	1	0.8 J	3	27 J	1 U	1 J
1,2-Dichloroethene (trans)	1	1 U	1 U	2	1 U	1 U
Chloroform	1	1 U	1 U	1 U	1 U	0.5 J
1,2-Dichloroethane	1	1 U	1 U	1 U	1 U	1 U
2-Butanone	5	5 U	5 U	5 U	5 U	5 U
Bromochloromethane	1	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1	1 U	8	1 J	1	34
Carbon Tetrachloride	1	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1	0.6 J	3	21	1 U	23
Dibromochloromethane	1	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U	1 U
Benzene	1	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1	1 U	1 U	1 U	1 U	1 U

PROJECT: Servall

Analytical Data Summary Table

HLA SAMPLE ID:		SV6BXXX01XX	SV09XXX01XX	SV11XXX01XX	SV12XXX01XX	SV13XXX01XX
LAB NUMBER:		9901160	9901083	9901084	9901085	9901086
DATE SAMPLED:		1/14/99	1/13/99	1/13/99	1/13/99	1/12/99
DATE ANALYZED:		1/24/99	1/23/99	1/24/99	1/23/99	1/24/98
ANALYTE	CRQL					
Bromoform	1	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	5	5 U	5 U	5 U	5 U	5 U
2-Hexanone	5	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	1	22 J	14 J	290 J	6 J	4 J
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	1	1 U	1 U	1 U	1 U	1 U
Toluene	1	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	1	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	1	1 U	1 U	1 U	1 U	1 U
o/p-Xylene	1	1 U	1 U	1 U	1 U	1 U
m-Xylenes	1	1 U	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1	1 U	1 U	1 U	1 U	1 U
1,2--Dibromo-3-chloropropan	1	1 U	1 U	1 U	1 U	1 U
Vinyl Acetate	1	1 U	1 U	1 U	1 U	1 U
Dilution Factor:		1	1	1 and 50	1	1 and 10
Associated Method Blank:		BLK002	BLK002	BLK002	BLK002	BLK002
Associated Equipment Blank:		QS01XX	QS01XX	QS01XX	QS01XX	QS01XX
Associated Trip Blank:		TB1/14	TB1/12	TB1/12	TB1/12	TB1/12

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Analytical Data Summary Table

	HLA SAMPLE ID:	SV14XXX01XX	SV15XXX01XX	SV23DXXX01XX	SV23SXXX01XX
	LAB NUMBER:	9901087	9901088	9901089	9901090
	DATE SAMPLED:	1/12/99	1/13/99	1/13/99	1/13/99
	DATE ANALYZED:	1/23/99	1/23/99	1/23/99	1/24/99
ANALYTE	CRQL				
Chloromethane	1	1 U	1 U	1 U	1 U
Bromomethane	1	1 U	1 U	1 U	1 U
Vinyl Chloride	1	1 UJ	1 UJ	1 UJ	1 UJ
Chloroethane	1	1 U	1 U	1 U	1 U
Methylene Chloride	2	2 U	2 U	2 U	2 U
Acetone	5	5 U	5 U	5 U	5 U
Carbon Disulfide	1	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1	1	8	1 U	4
1,1-Dichloroethane	1	1 U	1	1 U	1 U
1,2-Dichloroethene (cis)	1	1 U	17	2	9
1,2-Dichloroethene (trans)	1	1 U	1 U	1 U	1 U
Chloroform	1	1 U	0.6 J	1 U	1 U
1,2-Dichloroethane	1	1 U	1 U	1 U	1 U
2-Butanone	5	5 U	5 U	5 U	5 U
Bromochloromethane	1	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	1	3	17	1 U	6
Carbon Tetrachloride	1	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	1	1 U	1 U	1 U	1 U
Trichloroethene	1	8	30 J	1 U	3
Dibromochloromethane	1	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	1	1 U	1 U	1 U	1 U
Benzene	1	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	1	1 U	1 U	1 U	1 U

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Analytical Data Summary Table

HLA SAMPLE ID:		SV14XXX01XX	SV15XXX01XX	SV23DXXX01XX	SV23SXXX01XX
LAB NUMBER:		9901087	9901088	9901089	9901090
DATE SAMPLED:		1/12/99	1/13/99	1/13/99	1/13/99
DATE ANALYZED:		1/23/99	1/23/99	1/23/99	1/24/99
ANALYTE	CRQL				
Bromoform	1	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	5	5 U	5 U	5 U	5 U
2-Hexanone	5	5 U	5 U	5 U	5 U
Tetrachloroethene	1	1 UJ	250 J	3 J	29 J
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U
1,2-Dibromoethane	1	1 U	1 U	1 U	1 U
Toluene	1	1 U	1 U	1 U	1 U
Chlorobenzene	1	1 U	1 U	1 U	1 U
Ethylbenzene	1	1 U	1 U	1 U	1 U
o/p-Xylene	1	1 U	1 U	1 U	1 U
m-Xylenes	1	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	1	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	1	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	1	1 U	1 U	1 U	1 U
1,2--Dibromo-3-chloropropan	1	1 U	1 U	1 U	1 U
Vinyl Acetate	1	1 U	1 U	1 U	1 U
Dilution Factor:		1	1 and 100	1	1 and 10
Associated Method Blank:		BLK002	BLK002	BLK002	BLK002
Associated Equipment Blank:		QS01XX	QS01XX	QS01XX	QS01XX
Associated Trip Blank:		TB1/12	TB1/12	TB1/12	TB1/12